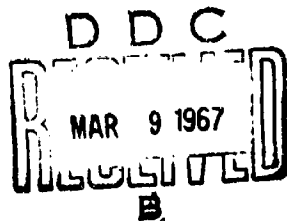


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ARCHITECTS OF LABORATORY ANIMAL FACILITIES 1961 through 1966

NATIONAL RESEARCH COUNCIL
NATIONAL ACADEMY OF SCIENCES
NATIONAL ACADEMY OF ENGINEERING



ARCHITECTS

of

LABORATORY ANIMAL FACILITIES

1961 through 1966

(Listed alphabetically by state and firm name)

NATIONAL RESEARCH COUNCIL

National Academy of Sciences National Academy of Engineering

2d Edition

February 1967

INSTITUTE OF LABORATORY ANIMAL RESOURCES

2101 Constitution Avenue, NW

Washington, D.C. 20418

INSTITUTE OF LABORATORY ANIMAL RESOURCES

The Institute of Laboratory Animal Resources (ILAR) was founded in 1952 as a result of a conference on animal procurement called by the Chairman of the Division of Biology and Agriculture of the National Academy of Sciences-National Research Council. The Institute was established as a coordinating agency to disseminate information, survey existing and required resources, establish standards, promote education, hold conferences, and generally assist in shaping the evolution of the field of laboratory animal resources so that needed information and quality animal stock would be available to the research scientists. In this effort, the ILAR works to enlighten the research animal scientist, veterinarian, technician, and supplier by furnishing them with information and guidelines developed through the participation of authorities in the field.

In the last few years the ~~ILAR~~ has received an ever-increasing number of requests for assistance in designing laboratory animal research facilities. In order to furnish meaningful information in response to these requests, the ILAR prepared the first edition of "Architects of Laboratory Animal Facilities, 1960 through 1965". This publication was approved by the AIA, and will be updated each December.

This reference list was supported in part by Contract PH43-64-44 from the United States Public Health Service; Grant #RC-1H from the American Cancer Society, Inc.; Contract Nonr-2300(24) with the Office of Naval Research, United States Army, and United States Air Force; and Contract AT(49-1)-643 with the United States Atomic Energy Commission.

Architects and projects	Description/location	Completed	Approximate cost	Clients
SHERLOCK, SMITH AND ADAMS, INC PO Drawer 630 Montgomery, Ala. 36101	Included nine projects. Two dealing with animal research were cattle-holding and isolation barns. Area: 12,000 sq ft./Oak Ridge, Tenn.	1961	Cattle holding: \$44,406 Isolation barns: \$21,175	US Atomic Energy Commission and U of Tenn.
Agricultural Research Project No 2	Cattle- and sheep-holding barn and nutrition barn improvement./Oak Ridge, Tenn.	1962	\$71,400	US Atomic Energy Commission and U of Tenn.
Redesign of isolation barn	Large animal autopsy facility of 2,212 sq ft. Radioisotope storage and preparation lab of 600 sq ft./Oak Ridge, Tenn.	1963	\$116,860	US Atomic Energy Commission
Autopsy facility and preparation lab	Research lab and storage of chemicals and other items used by agricultural and biological research lab--16,582 sq ft; stores bldg--3,870 sq ft./Oak Ridge, Tenn.	1964	\$453,470	US Atomic Energy Commission and U of Tenn.
Addn to central research lab and stores bldg	Small amount of animal research--mainly chimpanzees./Pensacola, Fla.	1964	Total: \$3,325,000	US Navy
School of Aviation Medicine, US Naval Air Station				

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>OLSEN & SANDS</u> Box 2331 Juneau, Alaska 99801</p> <p>Animal facilities in biol sciences bldg</p>	<p>Included: 1) exterior--heated runs, self-contained cold rooms ranging to -50 F; 2) interior--controlled vivariums, environment rooms ranging to -60 F, plus rooms for kitchen, utility, storage, control, examination, washing, refrigeration, mechanical equipment, etc. All designed for future expansion. Projected use: study of native animals to size of muskox and moose. Approx 10,000 sq ft excluding mechanical and refrigeration and minor areas in main building./U of Alaska, College, Alaska</p>	1965	Total: \$3,500,000	U of Alaska

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>CAIN, NELSON & WARES, ARCHITECTS</u> 151 S Tucson Blvd Tucson, Ariz. 85716	For study of bees./Tucson, Ariz.	1966	\$500,000	US Dept of Agriculture (under direction of General Services Administration)
Entomology lab				
Alterations to the Agricultural Sciences Bldg	/Tucson, Ariz.	1966	\$125,000	Board of Regents, U of Ariz.
<u>FRIEDMAN & JOBUSCH</u> 2233 E Broadway Tucson, Ariz. 85719				
Basic sciences bldg	A large facility and laboratory complex for animals used in research./U of Ariz., Tucson, Ariz.	1966	-	U of Ariz. (Robert L. Houston, Director, Physical Plant Dept)
<u>CARL LEMAR JOHN, ARCHITECT</u> 4337 E Fifth St Tucson, Ariz. 85711				
Dairy science research center	Five herds of milk cows, bull and breeding pens, maternity stable, milking parlor, hay and grain storage barns, and milk testing lab./Campbell Avenue Farm, U of Ariz., Tucson, Ariz.	1963 1965	\$12,000 \$8,000	U of Ariz.
Cattle feeding pens	Twenty cattle feedlots, three grain storage bins, feed grinding mill, hay storage barn, branding corral./Casa Grande Highway Farm, U of Ariz., Tucson, Ariz.	1962 1966	\$7,000 \$8,000	U of Ariz.

ARIZONA (Contd)

4.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>CARL LEWIS JOHN, ARCHITECT</u> (Contd) Animal isolation facility	For research on valley fever. Lab: 800 sq ft. Monkey bldg: 60 cages; dog pens. Exposure pens (monkeys and dogs); small animal lab (mice and rabbits)./Tucson, Ariz.	1963 1965	\$11,000 \$9,000	U of Ariz.
Entomology lab	Field lab to support main activities on campus. Area: 500 sq ft./Campbell Avenue Farm, U of Ariz.	1965	\$8,000	U of Ariz.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>MICHAEL GOODMAN, ARCHITECT</u> 2161 Shattuck Ave Berkeley, Calif. 94704				
Remodeled Life Sciences Bldg	Remodeling provided 1,400 sq ft, divided into two large cage rooms for dogs and smaller rooms for cats. Air-conditioned. Walls soundproofed./U of Calif., Berkeley	1962	\$45,000	U of Calif., Berkeley
Rooms converted for animal use in Life Sciences Bldg	Floors topped with rubberized plastic. Wall and ceiling surfaces coated with epoxy polymers marine paint. Air-conditioned. Constructed marine aquarium tanks of fiber glass. Two temp and humidity controlled rooms installed in Museum of Vertebrate Zoology. Animal quarters: 2,000 sq ft; total project: 36,000 sq ft./U of Calif., Berkeley	1963	\$750,000	U of Calif., Berkeley
Remodeled room into a suite of animal rooms in Life Sciences Bldg	Animal rooms provided with related service rooms; 2,250 sq ft in surgery, autopsy and animal rooms. Partitions and ceilings of metal lath and cement plaster./U of Calif., Berkeley	1964	\$100,000	U of Calif., Berkeley
Installed two temp and humidity controlled rooms, Life Sciences Bldg	For temporary storage of exptl animals; 60 sq ft each room./U of Calif., Berkeley	1965	\$70,000	U of Calif., Berkeley
Remodeled classroom for Dept of Zoology	To provide class space and study cubicles for observation of birds, small mammals, and aquatic life. Movable cages of wood and metal screen, fiber glass doors, stainless steel trays. Movable observation screens. Animal quarters: 1,000 sq ft./U of Calif., Berkeley	1966	\$500,000	U of Calif., Berkeley

CALIFORNIA (Contd)

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Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>MICHAEL GOODMAN, ARCHITECT</u> (Contd)</p> <p>Atomic Energy Commission Project No 6: Radiobiol lab and expansion of clinic bldg (food mixing and specimen storage)</p>	<p>One bldg 3,740 sq ft gross area containing histology and pathology labs, microscope rooms, and vet offices; air-conditioned with weatherstripped openings to control dust. One bldg of 2,300 sq ft gross area with separate air-conditioning system for each cage room, and for mixing and storage rooms. Exterior and interior walls of concrete block. Interior partitions of wood frame and gypsum board. Wall and ceiling surfaces of cage rooms and food mixing area of antibacterial cement plaster. Exterior doors weatherstripped to prevent entry of vermin and aid temp control./U of Calif., Davis</p>	<p>1966</p>	<p>\$140,000</p>	<p>U of Calif., Davis</p>
<p><u>WELTON BECKET AND ASSOCIATES--</u> <u>ARCHITECTS, ENGINEERS</u> 10000 Santa Monica Blvd Los Angeles, Calif. 90067</p> <p>Health Sciences Center animal facilities</p>	<p>Gross area: 54,260 sq ft. Rooms for: animals, staff lockers, showers, toilets, food storage, food preparation, office and records, cage cleaning and storage, bedding storage, inoculation, isolation, operating, sterile, preparation, scrub-up, glass and equipment: washing, sheep, autopsy, student labs, pathol incinerator. Areas serviced by animal rooms: 85,000 sq ft. Labs: biophysics, radioisotope, anatomy, pathol, pharmacology, physiol, physiol chem, infectious disease, surgical research, med research, parasitology, mycology, gynecology, obstet research. Constant temp and cold rooms./U of Calif., Los Angeles</p>	<p>1961-65</p>	<p>-</p>	<p>U of Calif., Los Angeles</p>

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>WELTON BECKETT AND ASSOCIATES-- <u>ARCHITECTS, ENGINEERS</u> (Contd)</p> <p>Health Sciences Center, Brain Research Institute</p>	<p>Animal facilities: 5,580 sq ft gross area. Rooms for: animals, animal surgery, recording, cage washing and storage, chronic animals. Areas serviced by animal rooms: 34,620 sq ft. Labs: general, electron-microscope, neurohistology, tissue culture, isotope, pharmacology, circulation, neuropharmacology, brain and infection, sensory testing, brain, neuroendocrinology, perception, behavior, discrimination, biophysics, histology, recording. Rooms: dark, cold, constant temp, glass washing and storage, precision and instrument, balance and microscopic dissecting, utility, sterile, soundproof, isotope counting, assay rat, electronics, special procedures./U of Calif., Los Angeles</p>	1961-65	-	U of Calif., Los Angeles
<p>Health Sciences Center, Cancer Research Institute</p>	<p>Animal facilities: 770 sq ft. Rooms: animal operating, sterile, animal preparation and recovery, etc. Areas serviced by animal room: 8,630 sq ft. Labs: embryo transplant, tissue culture, serology, bacteriology, mycology, culture inoculation, tissue extraction, tumor control research, virology, protein and enzyme, metabolism, solvent extraction, pathol, cytology, radioactive isotope, photography, mass spectrometer, pain physiolo. Rooms: sterile, dark, constant temp, cold, deep freezer, balance and colorimeter, kitchen, ultraviolet dark, stock, sample counting./U of Calif., Los Angeles</p>	1961-65	-	U of Calif., Los Angeles

Architects and projects	Description/location	Completed	Approximate cost	Clients
WELTON BECKETT AND ASSOCIATES-- <u>ARCHITECTS, ENGINEERS</u> (Contd)	Physical Rehabilitation Center Animal facilities: 2,400 sq ft. Rooms: animal, cage cleaning, small animals, food storage Areas serviced by animal rooms: 6,000 sq ft. Labs: immunology, enzyme chem, electron microscope, exptl pathol, isotope and chromatography, bone microtechnique, calcium biochem, bone physiol./U of Calif., Los Angeles	1961-65	-	U of Calif., Los Angeles
Space biology lab animal facilities	Area: 900 sq ft. Rooms: animal, air lock, food preparation, storage. Areas serviced by animal rooms: 3,700 sq ft (behavior testing lab, animal surgery, electronic shop, computer data processing, program and checkout rooms). /U of Calif., Los Angeles	1961-65	-	U of Calif., Los Angeles
Research lab animal facilities	Animal facilities: 6,840 sq ft. Rooms: infected animal, operating, recording, scrub-up, sub-sterile, storage, lockers, showers, toilets, food storage and preparation, dog, small animal, cage washing and sterilization; dog run; pathol incinerator. Areas serviced by animal rooms: 18,220 sq ft. Labs: general, virus, hematology, chem, immunology, antibiotic, enteric, leukemis, cardiac research, fluoroscopy, photo, tissue culture, histo-chem, gas analysis, histology, photography, general electronics, isotope. Rooms: incubator, reirig, glass washing and sterilizing, special instruments, sterile cubicle, centrifuge, utility and preparation, sound isolated, isotope counting, cold, freezer./Children's Hospital, 4614 Sunset Blvd, Los Angeles, Calif. 90027	1961-65	-	Children's Hospital

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>WELTON BECKETT AND ASSOCIATES-- ARCHITECTS, ENGINEERS (Contd)</p> <p>Animal facilities</p>	<p>Area: 4,000 sq ft. Rooms: cage washing and cleaning, food storage, caretaker's office, food preparation, autopsy, small animal, operating, X-ray and fluoroscope, dark, sterilizing, personnel facilities, pathol incinerator, dog run. Areas serviced by animal rooms: 15,500 sq ft. Labs: histo-cytopathol, fluoro-microscopy, organ processing, thoracic research, eye research, gastroenterology, motility, secretion, metabolic, radioisotope, hematology, photography, general, respiration, animal expt, chem. Rooms: organ preparation, isotope storage, cold instrument, glass washing, shop, storage./Halper Clinic and Research Bldg, Los Angeles, Calif.</p>	1961-65	-	Halper Clinic
<p>Animal facilities</p>	<p>Area: 4,000 sq ft. Rooms: animal, animal isolation, sterilizing, work, refriger, animal operating, feed, trash. Areas serviced by animal rooms: 2,500 sq ft. Labs and sterile room./Veterans Administration Hospital, Palo Alto, Calif.</p>	1961-65	-	Veterans Administration
<p>Health Sciences Center animal facilities expanded</p>	<p>Gross addn: 34,000 sq ft with rooms for animals and lockers, showers, toilets, staff offices, food storage and preparation space. Total research space in vivarium area: 4,029 sq ft. Approx 60% gross space used for animal space, i.e., animal rooms, pens, runs and treatment rooms. Structure is multi-story, type one construction, completely air-conditioned, sanitary and verminfree. Capable of handling all sizes cage washing and sterilizing.</p> <p>(Contd)</p>	1966	<p>Total: \$11,675,000 Animal area: \$1,200,000</p>	U of Calif., Los Angeles

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>WELTON BECKET AND ASSOCIATES--</u> <u>ARCHITECTS, ENGINEERS (Contd)</u> Health Sciences Center animal facilities expanded (Contd)	Complete food preparation, operating rooms, temp controlled rooms and incineration for pathol specimens to whole carcasses./U of Calif., Los Angeles			
<u>DANIEL, MANN, JOHNSON & MENDENHALL</u> <u>3325 Wilshire Blvd</u> <u>Los Angeles, Calif. 90005</u> Louisville Zoological Garden	Approx 151 acres./Louisville, Ky.	1964	\$1,500,000	Louisville Zoological Commission
National Zoological Park improvement program	Phases I, II, III. Phase II: hardy hoofed stock, deer paddocks, animal hospital and service areas, Smokey Bear facility, utility./Washington, D.C.	1964	Phase II: \$1,471,330	Government of District of Columbia
A-E services for Royal College, vet facility	Microbiol and pathol block. Area: 45,000 sq ft./Nairobi, Kenya	1965	-	Hughes & Polkinghorne
Master planning--rehabilitation of existing facility	New facilities: library, science labs, related site work. Area: 119,100 sq ft./Santa Barbara, Calif.	1965	\$3,020,300	Santa Barbara High School District
Victor Valley Lutheran Hospital	Fifty-four bed hospital. Area: 32,230 sq ft./Victorville, Calif.	1965	\$1,009,454	Victor Valley Lutheran Hospital Association

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>FAXON, GRUYS & SAYLER, ARCHITECTS & ENGINEERS 589 N Larchmont Blvd Los Angeles, Calif. 90004</p> <p>Medical research facility</p>	<p>Vivarium area: 8,000 sq ft. Rooms: large and small animal, cage cleaning, food service, holding, offices. Research space: 16,000 sq ft, including surgeries, radiology, etc. Reinforced concrete structure with capability of adding two addnl floors./4751 Fountain Ave, Los Angeles, Calif. 90029</p>	1964	<p>Total: \$807,480 Animal area: \$224,000</p>	Cedars of Lebanon Hospital
<p>JOSEPH & JOSEPH, ARCHITECTS & ENGINEERS 1256 Westwood Blvd Los Angeles, Calif. 90024</p> <p>70,000 sq ft air-conditioned bldg</p>	<p>Construction: tilt-up and prestressed concrete. Two existing lab wings and two future lab wings, an animal bldg and executive offices. Animal bldg contains rooms for rabbits and mice, cages and cage washing equipment. Area in animal bldg: 2,000 sq ft. /7600 Tyrone Ave, Van Nuys, Calif.</p>	1966	\$1,400,000	Bio Science Laboratories
<p>22,000 sq ft air-conditioned bldg</p>	<p>Construction: tilt-up concrete and glulam beam. Animal bldg divided into two clean areas, one for mice and rats. Both contain rooms for holding and breeding. Dirty work area room equipped with cage washer and autoclave. Includes animal feed and bedding storage rooms. Separate area provided for special projects./Capwell Drive and Pendleton Way, Oakland, Calif.</p>	-	\$340,000	Berkeley Pacific Laboratories

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>ROBERT KLEGMAN, AIA, ARCHITECT & PLANNER</u> 10689 Santa Monica Blvd Los Angeles, Calif. 90025 Familian Research Bldg	Animal area: 3,000 sq ft. Research area: 3,500 sq ft. Percentage of animal space to total: 30%./1500 E Duarte Rd, Duarte, Calif.	1962	\$250,000	City of Hope Medical Center
<u>THE RALPH M. PARSONS COMPANY</u> 617 W Seventh St Los Angeles, Calif. 90638 1/	Animal disease lab Total floor space: 361,000 sq ft (located on 318 acres). Projected use: research of disease in all types of animals and poultry. Animal space: 242,000 sq ft. Research space: 119,000 sq ft. Percentage of animal space to total space: 67%. Concrete and masonry design./Ames, Iowa	1961	\$15,000,000	Department of Agriculture, General Services Administration
Modification of biological lab bldg	Modification to lab bldg involved 42,000 sq ft of addnl floor space. Projected use: bio1 research, with animals subjected to specific testing procedures. Animal space: 12,600 sq ft. Research space: 29,400 sq ft. Percentage of animal space to total space: 30%. Concrete and masonry design./Fort Detrick, Md.	1963	\$1,007,972	US Army Chemical Corps
Meat technology and animal disease lab	Total space: 96,000 sq ft, including 5,500 sq ft of cattle corrals. Projected use: research in meat technology and animal diseases with special emphasis on hoof and mouth disease. Animal space: 37,000 sq ft (indoors only). Research space: 20,000 sq ft. Percentage of animal space to total space: 79% (Contd)	1963	\$2,039,000	US State Department, Agency for International Development

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>THE RALPH M. PARSONS COMPANY</u> (Contd)	<p>Including corrals and slaughtering facilities. Concrete and masonry construction./Buenos Aires, Argentina</p>			
<u>RISLEY, GOULD & VAN HEUKLYN,</u> <u>ARCHITECTS</u> 2502 W Third St Los Angeles, Calif. 90057	<p>For graduate teaching and research in biol., containing 106,147 gross sq ft, of which 9,566 net sq ft are used for animal facilities. Entire bldg is air-conditioned, with humidity control provided in animal lab area. Entire animal facility has ceramic tile floors and walls designed for hosing with hot water./La Jolla Shores Drive, La Jolla, Calif.</p>	1964	\$2,471,000	U of Calif., San Diego
<p>Five-story bldg</p>	<p>Contains 79,855 gross sq ft of bldg area, of which 9,971 net sq ft are used for animal facilities. Entire bldg is air-conditioned, with humidity control provided in animal lab area. Entire animal facility has ceramic tile floors and walls designed for hosing with hot water./476 Prospect St, La Jolla, Calif.</p>	1966	\$2,711,000	Scripps Clinic and Research Foundation
<u>ANDERSON SIMONDS, DUSEL AND CAMPINI</u> 2800 Park Blvd Oakland, Calif. 94610	<p>Animal space: 15,000 sq ft, housing approx 2,500 primates. Research space: 26,000 sq ft.</p>	1965	Total: \$1,600,000 (Contd)	U of Calif., Davis
<p>National Center for Primate</p>				

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>ANDERSON SIMMONS, DUSEL AND CAMPINI (Contd)</u> National Center for Primate Biol (Contd)	<p>Total bldg area: 54,500 sq ft. Percentage of animal space to total space 28%. One-story reinforced concrete bldg. Concrete slab on grade. Precast, prestressed wall panels and double tee roof beams. Animal rooms constructed with precast concrete partitions, slate cages, wire gates, quarry tile floors. Labs and admin area construction: metal and fire treated wood studs, plaster, acoustical ceilings, vinyl asbestos floors. Entire bldg air-conditioned. /U of Calif., Davis</p>		Animal area: \$450,000	
<u>CLARK, STROMQUIST, POTTER, AND EHRLICH</u> 3200 Hanover St Palo Alto, Calif. 94304 A complete med research facility	<p>Total area: 24,000 sq ft. Animal area: 4,000 sq ft. The main bldg, including part of the animal facilities, was completed in 1958. These original animal facilities were for all types of animals up through cats and rabbits. The facilities completed in 1965 constituted about half the total animal facilities and are especially for dogs./860 Bryant St, Palo Alto, Calif.</p>	1965	\$600,000	Palo Alto Medical Research Foundation
A complete chem and biochem research facility	<p>Bldg constructed for a pharm company. Total area: 80,000 sq ft. Animal facilities: 10,000 sq ft. Bldg accommodates dogs, monkeys, and other animals./3401 Hillview Ave, Palo Alto, Calif.</p>	1965	\$2,350,000	Syntex Labs, Inc.

Architects and projects	Description/location	Completed	Approximate cost	Clients
EDWARD DURELL STONE, INC 378 Waverley St Palo Alto, Calif. Clinical sciences research bldg	Bldg consists of 4 stories and penthouses of reinforced concrete with animal quarters in the penthouse. Area: approx 148,000 sq ft. This is a new wing to an existing bldg and will expand research facilities for radiology, infectious diseases, virology, cardiology, oncology, immunology, hematology, surgery, psych, pediatrics, genetics and obstet-gynecol./Palo Alto, Calif.	1966	\$5,500,000	Stanford U Medical Center
NEPTUNE & THOMAS AND ASSOCIATES 1560 W Colorado Blvd Pasadena, Calif. 91105 Lab of nuclear med and radiation biol	For basic research on effect of nuclear energy on animals, and human and plant life. Total area: 86,127 sq ft., with animal shelter included./U of Calif., Los Angeles	1961	\$2,400,000 (bldg only)	U of Calif., Los Angeles
R. R. FRANCESCHI, AIA, ARCHITECT 2636 Fulton Ave Sacramento, Calif. 95821 Small animals lab	Area: 5,000 sq ft. For expts with diseases in rabbits, rats, mice, guinea pigs, hamsters, skunks, foxes, chinchillas, dogs, wild birds, bats, chickens. Includes 10 animal cage rooms, each with anteroom, and rooms for cage washing, sterilizing, and feed storage. Construction: concrete with wood frame roof. Contains isolation units. Unit ventilator in each room. Windows and wall louvers./Davis, Calif.	1963	\$115,000	U of Calif. Veterinary Science School, Davis

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>WILLIAM KOBLIK, ARCHITECT</u> 2203 Thirteenth St Sacramento, Calif. 95818				
Vet clinic bldg, Strontium 90	/Davis, Calif.	1961	\$160,920	U of Calif., Davis
Office and lab bldg, Strontium 90	/Davis, Calif.	1963	\$448,633	U of Calif., Davis
<u>HARRY T. NYLAND, AIA, ARCHITECT</u> 2409 J St Sacramento, Calif. 95816				
Poultry husbandry exptl bird bldg	Controlled environment. Area: 4,600 sq ft./U of Calif., Davis	1962	\$120,000	U of Calif., Davis
<u>KITCHEN AND HUNT, AIA, ARCHITECTS</u> 20 Hawthorne St San Francisco, Calif. 94105				
Animal bioradiol lab--Increment I	Facilities for raising exptl rodents in disease-free environment, plus admin areas, and labs, including cobalt source lab. Facility area: 12,700 sq ft. Cobalt area: 1,150 sq ft. Constructed of reinforced concrete. Partitions in lab of gypsum board on metal studs. Completely air-conditioned; uses 100% outside air; temp control and filtering; zoning reheats with humidity control. Provision for dual installation of all major mech equipment./Lawrence Radiation Laboratory, U of Calif., Berkeley	1963	Increment I: \$432,000 Cobalt source lab addn: \$40,000	U of Calif., Berkeley
Animal bioradiol lab--Increment II	Facilities for raising exptl animals--dogs, goats, sheep, monkeys, rabbits, guinea pigs. Admin areas and labs included. Disease-free environment for long-term animal colony (Contd)	1964	\$763,900	U of Calif., Berkeley

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>KITCHEN AND HUNT, AIA, ARCHITECTS</u> (Contd) Animal bioradiol lab--Increment II (Contd)	<p>subject to low radiation. Facilities include two surgery rooms and a low background counting room (19,050 sq ft area). Reinforced concrete slabs, beams and columns. Animal room partitions constructed of metal lath and studs with cement plaster. Lab partitions constructed of resistive treated wood studs and gypsum board. Provisions for future air conditioning. No humidity control./Lawrence Radiation Laboratory, U of Calif., Berkeley</p>			
<u>ROGER LEE ASSOCIATES</u> 633 Battery St San Francisco, Calif. 94111 Berkeley Dog and Cat Hospital addn and remodeling	<p>Interior space: 2,400 sq ft. Exterior space: 1,000 sq ft. Indoor kennel area with individual kennels, special isolation wards and treatment rooms. Masonry walls, special sound insulation. Bldg completely enclosed with skylighted roof and air-conditioned./2126 Haste St, Berkeley, Calif.</p>	1962	\$25,000	Dr. James Roberts
<u>MAHER AND MARTENS, ARCHITECTS</u> 40 First St San Francisco, Calif. 94105 Bioscience lab	<p>This bioscience research facility is oriented toward space med. The project consists of four 1-story bldgs housing large and small animals and one 1-story lab, office and animal care bldg. Space devoted to housing animals approx 21,000 sq ft or 38% of total area of (Contd)</p>	1964	\$1,000,000	National Aeronautics and Space Administration

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>MAHER AND MARTENS, ARCHITECTS</u> (Contd)				
Bioscience lab (Contd)	bldgs. Space devoted to research: approx 15,000 sq ft. Bldgs constructed of reinforced concrete. The 1-story bldgs have exterior animal runs and all bldgs are interconnected by covered passageways./Ames Research Center, Moffett Field, Calif.			
Biol research lab	Lab is oriented toward research in contagious diseases. The project included the remodeling of existing wood frame structures and the addn of a new 2-story wood frame connecting bldg element, 20,000 sq ft. Area of remodeled space devoted to animal housing, holding and care: 12,000 sq ft. Area devoted to research facilities: approx 8,000 sq ft./US Naval Supply Center, Oakland, Calif.	1964	\$400,000	US Navy (Western Division, Bureau of Yards and Docks)
Animal research lab	This facility contains provisions for housing and holding large and small animals. Animal space: approx 20,000 sq ft, or 39% of total bldg. Research space: approx 15,000 sq ft. A 4-story, reinforced concrete structure./Dept of Agriculture Western Regional Research Lab, Albany, Calif.	1965	\$1,360,000	General Services Administration, Public Bldgs Service, Washington, D.C.
Central animal research facility and pathol bldg	This med research facility is for joint use of U of Calif. Medical Center and San Francisco General Hospital. Space devoted to housing both large and small animals: approx 12,000 sq ft, or 30% of total bldg. Research space: approx 8,000 sq ft. Four stories, with basement, reinforced concrete, including connecting tunnels	1965	\$1,250,000	City and County of San Francisco (Office of the City Architect)

Architects and projects	Description/location	Completed	Approximate cost	Clients
MAHER AND MARTENS, ARCHITECTS (Contd) Central animal research facility and pathol bldg (Contd) MILTON T. PFLUEGER, AIA 580 Market St San Francisco, Calif. 94104 Animal shelter for care and housing of animals Clinical sciences research bldg	to General Hospital./San Francisco General Hospital, 22d St and Potrero Ave, San Francisco, Calif. Remodeled and addn constructed. Reinforced concrete. Area: 18,000 sq ft./2500 16th St, San Francisco, Calif. Med and psychiatric research: 135,000 sq ft. A 4-story, reinforced concrete addn to Stanford Medical Center. Animal research space: 6,000 sq ft. Animal care facility area: 6,000 sq ft. (Associated on project with Edward D. Stone, Architect.)/Stanford U Medical Center, Calif.	 1964 1966	 \$470,000 \$6,500,000	San Francisco Society for Prevention of Cruelty to Animals Stanford U
REID & TARICIS 1019 Market St San Francisco, Calif. 94103 Health sciences instruction and research bldg	Two 16-story square bldgs. Structural steel frame, concrete slabs, movable partitions except in animal areas. Gross area: 400,000 sq ft. Gross animal area: 30,000 sq ft./U of Calif. Parnassus Ave, San Francisco, Calif.	1966	Total: \$15,000,000 Animal area: \$1,000,000	U of Calif. Medical School, San Francisco

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>SVERDRUP & PARCEL AND ASSOCIATES, INC</u> 417 Montgomery St San Francisco, Calif. 94104 1/</p> <p><u>J. FRANCIS WARD</u> 215 Leidesdorff St San Francisco, Calif. 94111</p>	<p>Animal behavior research station</p> <p>Series of bldgs, cages, and pits for storage and observation of animal behavior (mammals and birds of many species). Wood, metal and concrete construction--some of permanent type.</p> <p>Site: fenced-in area of approx 15 acres. Bldgs: 13 with total area of 12,500 sq ft. Enclosures: fenced or caged for dogs, primates and other mammals and for large birds (five with total area of 54,000 sq ft). Reinforced concrete pits for population and other studies (seven with total area of 6,000 sq ft)./U of Calif., Berkeley</p>	1962	\$400,000	Regents of the U of Calif., Berkeley
<p>Research animal facility</p>	<p>Bldg A: Reinforced concrete; 14,000 sq ft (6,000 sq ft specific pathogen-free animal area); lab, holding and other facilities. Bldg B: 1,240 sq ft and 7,000 sq ft animal runs. Facility for the breeding of pathogen-free animals, and for the use of the Radiological Defense Lab. Bldg completely air-conditioned and windowless (with complete controls for temp and humidity); fire alarm system and disaster alarm./Naval Radiological Defense Lab, San Francisco, Calif. (Hunters Point)</p>	1966	\$750,000	Dept of the Navy, Western Division, Naval Facility Engineering Command (12th Naval District)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>JAMES H. JOHNSON & ASSOCIATES - ARCHITECTS 7675 W 14th Ave Denver, Colo. 80215</p>	<p>Life Sciences Research Lab No 1</p> <p>Area: 9,000 sq ft. One story with central court area for animal runs. Structure is first of numerous research bldgs for housing research animals and research facilities. Exterior walls are windowless. Corridors and certain areas have windows onto court; small glass corner areas. Lower level: cage washing, personnel facility, shop. Upper level: mech equipment with separate mech zones for adjacent room./U of Colo.</p>	1965	\$200,000	U of Colo.
<p>Behavior Genetics Lab</p>	<p>Project contains colony rooms, exptl rooms, and support facilities for research on the behavioral genetics of the mouse. The bldg constitutes approx 7,000 sq ft, of which 2,500 is admin space, 500 sq ft is a biochem-histology lab, and the remaining 4,000 sq ft is research area. The research area is specific pathogen free with isolated areas of higher level sanitation, requiring a high degree of environmental control. Autoclaves, high efficiency filters, special wall coatings and crack-free construction were utilized to accomplish above requirements./U of Colo.</p>	1966	\$300,000	U of Colo.
<p>JOSEPH W. PAHL, AIA 1940 W Mississippi Ave Denver, Colo. 80223</p> <p>Surgical-metabolic lab</p>	<p>One-story structure of 17,907 sq ft housing animal research facilities, surgical and metabolic</p>	1964	\$600,000	Colo. State U

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>JOSEPH W. PAHL, AIA</u> (Contd)</p> <p>Surgical-metabolic lab (Contd)</p>	<p>research depts. Area: corridors, approx 15%; admin, approx 8%; surgical and metabolic depts, approx equal. Type III, 1-hr construction housing radio isotope labs and storage, necropsy, small animal operating, large animal operating (floor operations, stock operations, wall operating table), custom hydraulic large animal operating table), sterilizer room, sterile storage, phys instrumentation room, with stations to operating rooms, vacuum piping system, central air conditioning (compressed), central oxygen system, conductive flooring, non-slip acid resistant floors, custom designed facilities for securing animals, isotope counting rooms, metabolic lab (with grinding, drying and equilibrating rooms), low temp animal room (30 F to 68 F), high temp room (68 F to 120 F), small animal digestive room, large animal digestive room, custom designed equipment for waste collection (urine and feces), refrigerators for waste (animal) storage, hay and diet rooms, X-ray room and facility, utensil and equipment washing room, custom designed tack room, equipment room, recovery pens, and holding pens./Colo. State U, Fort Collins, Colo.</p>	1963	\$200,000	U of Colo. Medical Center
<p><u>RALPH T. VIRTUE, ARCHITECT</u> 1750 Gilpin St Denver, Colo. 80218</p> <p>Special small animal rooms</p>	<p>Used in association with research lab, suites for rodents, reptiles, etc. Space remodeled. //4200 E Ninth Ave, Denver, Colo.</p>			

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>DOUGLAS ORR, deCOSSY, WINDER AND ASSOCIATES, ARCHITECTS 111 Whitney Ave New Haven, Conn. 06510</p> <p>Lab of Epidemiology and Public Health</p>	<p>For teaching and research in epidemiology and public health, and including animal facilities, labs, offices and seminar rooms. Animal space: 20,700 sq ft (gross). Research space: 78,200 sq ft (gross). Percentage of animal space to total space: 21%. A new 9-story reinforced concrete structure of limestone cover and glass (rectangular plan)./Yale U, New Haven, Conn.</p>	1964	<p>Total: \$3,700,000 Animal area: \$840,000</p>	Yale U and Rockefeller Foundation
<p>Lab of clinical investigation</p>	<p>Clinical research in conjunction with Yale-New Haven Hospital. Includes animal facilities, labs and offices, storage, etc. Animal space: 11,480 sq ft (gross). Research space: 69,990 sq ft (gross). Percentage of animal space to total space: 16.5%. A new 10-story reinforced concrete structure with basement and sub-basement. Brick faced with slit windows. Swastika plan./Yale U, New Haven, Conn.</p>	1965	<p>Total: \$2,900,000 Animal area: \$440,000</p>	Yale U
<p><u>RICHARD SHARPE, AIA, ARCHITECT</u> 71 E Town St Norwichtown, Conn. 06360</p> <p>Zoo facilities</p>	<p>Four separate climate areas with glass viewing windows. Custom watering system for each enclosure, separate controlled-climate exhaust and ventilating systems. Separate feeding and transfer cage facilities./Mohegan Park, Norwich, Conn.</p>	1963	\$55,000	City of Norwich, Conn.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>GEORGE M. EWING CO., ARCHITECTS & ENGINEERS</u> 1101 17th St, NW Washington, D.C. 20036 1/	/Falls Church, Va.	1964	\$225,000	Bionetics Research
<u>RICHARD MALESARDI & ASSOCIATES</u> 1025 33rd St, NW Washington, D.C. 20007				
Labs and animal wards for carcinogenesis studies				
<u>METCALF AND ASSOCIATES, ARCHITECTS AND ENGINEERS</u> 1156 19th St, NW Washington, D.C. 20036	A 25,907 sq ft animal holding, breeding, and research facility for the U of Lagos Medical-Dental School. Consists of a 15,823 sq ft area of which 61% is used for animal pens, runs, breeding, food preparation, etc. A 10,084 sq ft area is used for experimentation, autopsy, operations, etc. Design is 1-story, masonry, rectangular; bldg is part of a complete medical campus./U of Lagos, Surulere, Lagos, Nigeria	1966	Total: \$257,192 Animal area: \$321,587	University of Works Federal Government of Nigeria
Animal quarters, U of Lagos				
<u>MILLS, PETTICORD & MILLS</u> 1735 K St, NW Washington, D.C. 20006	Area: 14,000 sq ft. Reinforced concrete and masonry, air-conditioned and equipped with plumbing to provide separate radioactive waste storage and disposal./Armed Forces (Contd)	1964	\$900,000	Area Public Works Officer, Chesapeake

1/ See Philadelphia, Pa., sheet for list of completed projects.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>MILLS, PETTICORD & MILLS (Contd)</u> Animal clinical research bldg (Contd) A 7,600 sq ft animal facility	Radiobiology Research Institute Facility, National Naval Medical Center, Bethesda, Md. Adequate to prepare and care for animals before and after exposure to clinical radiation in associated Reactor-Linear Accelerator Facility. Construction: concrete and masonry./Armed Forces Radiobiology Research Institute Facility, National Naval Medical Center, Bethesda, Md.	1964	\$900,000	Area Public Works Officer, Chesapeake
Third-story addn to animal clinic lab bldg <u>THE RALPH M. PARSONS COMPANY</u> 1000 16th St, NW Washington, D.C. 20036 1/ <u>SANDERS & THOMAS, INC</u> Farragut Bldg 900 17th St, NW Washington, D.C. 20006 2/ <u>E. TODD WHEELER AND THE PERKINS & WILL PARTNERSHIP</u> 1030 15th St, NW Washington, D.C. 20005 3/	Includes acoustical and environmental chambers and flexible lab rooms which have movable partitions. Areas are temp and humidity controlled. /Armed Forces Radiobiology Research Institute Facility, National Naval Medical Center, Bethesda, Md.	1965	\$200,000	Area Public Works Officer, Chesapeake

1/ See Los Angeles, Calif., sheet for home office; see New York sheet for Parsons-Jurden Corp, a wholly-owned subsidiary.

2/ See Potomac, Pa., sheet for home office.

3/ See New York sheet for list of completed projects.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>THE RALPH M. PARSONS COMPANY 1325 N Atlantic Ave, Suite 185 Cocoa Beach, Fla. 32931 1/</p> <p>SVERDRUP & PARCEL AND ASSOCIATES, INC 112 W Adams St Jacksonville, Fla. 32202 2/</p> <p>CONNELL, PIERCE, GARLAND & FRIEDMAN PO Box 677, Riverside Station Miami, Fla. 33135</p>	<p>A room for mice, rats, and rabbits. Area: 160 sq ft. Hubbellite floors, neoprene door seals. Wash-down facilities. Separate air conditioning system with humidification and reheating. /Florida Presbyterian College, St. Petersburg, Fla.</p>	1964	<p>Total: \$1,100,000 Animal area: \$3,500</p>	Florida Presbyterian College
<p>Porpoise show bldg</p>	<p>Pool with 40-ft radius, two holding tanks 10 ft x 20 ft. Sea lion pool 19 ft x 6 ft. Animal training room. Food storage and preparation area, handlers quarters./Flushing, N.Y.</p>	1964	\$1,750,000	Florida World's Fair Authority, Inc
<p>Primate bldg</p>	<p>Human and animal testing. Area: 2,800 sq ft; animal area 65%/5400 34th St, St. Petersburg, Fla.</p>	1966	\$23,000	Florida Presbyterian College

1/ See Los Angeles, Calif., sheet for home office; see New York sheet for Parsons-Jurden Corp, a wholly-owned subsidiary.

2/ See St. Louis, Mo., sheet for home office.

Architects and projects	Description/location	Completed	Approximate cost	Clients
SMITH, KORACH & ASSOCIATES, <u>ARCHITECTS-ENGINEERS</u> 721 NW 21st Court Miami, Fla. 33125	Animal research area consisting of 10,800 sq ft /1475 NW 12th Ave, Miami, Fla. Animal space: 3,200 sq ft. Research space: 9,300 sq ft. Animal space 15% of total./U of Miami, S Campus, Richmond, Fla.	1963 1966	- \$175,000	National Children's Cardiac Hospital Dept of Health, Edu- cation, and Welfare US Public Health Service
<u>OWLES & HEASLEY, AIA, ASSOCIATES</u> 1810 W Colonial Drive Orlando, Fla. 32804 Animal diagnostic lab	Masonry bearing wall structure of 4,450 sq ft. For support of state biopsy services available to public./Live Oak, Fla.	1965	\$135,000	Florida Dept of Agriculture
Cottondale Diagnostic Lab	Area: 1,000 sq ft. Masonry bearing wall, steel roof, autopsy room and refrig storage facilities added to existing diagnostic lab./Cottondale, Fla.	1965	\$30,000	Florida Dept of Agriculture

Architects and projects	Description/locations	Completion	Approximate cost	Clients
<u>HEERY AND HEERY, ARCHITECTS & ENGINEERS</u> 1366 Peachtree St, NE Atlanta, Ga. 30309 Communicable disease center	An animal breeding and holding facility. Steel frame structure of 109,358 sq ft./Lawrenceville, Ga.	1964	\$2,000,000	General Services Administration
<u>ROBERT AND COMPANY ASSOCIATES</u> 96 Poplar St, NW Atlanta, Ga. 30303 Public Health Service Medical Research Center	For communicable disease and virus research. Two 5-story bldgs containing research labs, small animal facilities, offices, two auditoriums, classrooms for graduate instruction, audiovisual production facilities, cafeteria, boiler and central refrigerant plant, and warehouse. Phase 1: 363,580 sq ft. Phase 2: 350,650 sq ft. /1600 Clifton Rd, Atlanta, Ga. 30333	Phase 1 & 2 1961-65	\$19,000,000	US Public Health Service, General Services Administration
Research bldg	Area: 50,000 sq ft. A 5-story med research facility devoted almost entirely to work with lab research animals./Grady Hospital, Atlanta, Ga.	1965	\$1,174,000	Emory U

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>ROGER LEE ASSOCIATES</u> 1020 Anahī Honolulu, Hawaii 96814 <u>1/</u>				

1/ See San Francisco, Calif., sheet for home office.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>JOHN H. ALSCHULER, INC</u> 919 N Michigan Ave Chicago, Ill. 60611	Dog and research lab space addn Research animal housing and labs	1961 1962	\$280,000 \$750,000	Baxter Labs, Morton Grove, Ill. Argonne National Laboratory
<u>FRIEDMAN, ALSCHULER & SINCERE</u> 130 N Franklin St Chicago, Ill. 60606	For mice, rats, guinea pigs, grasshoppers, etc. Air-conditioned, including treatment for radioactive materials. Area: 40,000 sq ft./9700 S Cass Ave, Lemont, Ill. Addn to animal lab consisting of 21,840 sq ft./9700 S Cass Ave, Argonne, Ill.	1961	\$680,395	Argonne National Laboratory
Illinois State Pediatric Hospital for Mentally Deficient Baxter Labs, Inc	Basement and seven floors; 197,433 sq ft./1640 W Roosevelt Rd, Chicago, Ill. A lab of 180,980 sq ft./Mountain Home, Ark.	1962 1964	\$4,779,829 \$1,800,000	State of Illinois Springfield, Ill. Baxter Labs, Inc Morton Grove, Ill.
<u>E. TODD WHEELER AND THE PERKINS & WILL PARTNERSHIP</u> 309 W Jackson Blvd Chicago, Ill. 60606 1/				

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>BROWN & SLEMMANS, ARCHITECTS</u> 701 Jackson St Topeka, Kans. 66603 Research facility	One wing, top floor, specially equipped for small animal studies including chem, physiologic and neurological testing. Area: 36 ft x 85 ft. Includes receiving and isolation spaces, equipment and food storage, colony rooms, experimental rooms, shielded rooms and adjunctive spaces. /West Campus, The Menninger Foundation, Topeka, Kans.	1963	Total: \$386,223 Animal area: approx 10%	The Menninger Foundation
<u>JOSEPH & JOSEPH</u> 1387 S Fourth St Louisville, Ky. 40208 Med-dental research bldg	Area: 119,900 sq ft. Top floor contains approx 15,000 sq ft for animal, reptile, and bird care. Indoor and outdoor area for dogs. Approx 12% of gross bldg area is for animal care. /U of Louisville, Floyd St between Madison and Walnut Sts, Louisville, Ky.	1963	\$2,903,000	U of Louisville

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>FRERET AND WOLF, ARCHITECTS 630 Gravier St New Orleans, La. 70130</p> <p>Delta Regional Primate Research Center</p>	<p>Approx 105,159 sq ft. Contemporary design. Group of lab bldgs and supporting services. Basic facilities: physiol, biochem, radiobiol, microbiol, genetic, pathol, and anatomical labs with unique resources for behavioral studies and radiation biol. High-speed computer for retrieving information. Primary aim: creation of integrated program of comparative biol research in primates directed toward solution of health problems in man. Five-point program with selected representative primate species; breeding program./Tulane U, Covington, La.</p>	1964	\$2,500,000	Tulane U

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>ALONZO J. HARRIMAN ASSOCIATES, INC 292 Court St Auburn, Maine 04210</p> <p>Animal health bldg</p> <p>Carnegie Science Bldg</p> <p>Air conditioning of three animal rooms, Morrell Park</p> <p>Phase II, air conditioning. Morrell Park</p> <p>Clarence Cook Little Hall</p>	<p>/The Jackson Laboratory, Bar Harbor, Maine</p> <p>Included facilities for animal room./Bates College, Lewiston, Maine</p> <p>/The Jackson Laboratory, Bar Harbor, Maine</p> <p>A study for budgeting air conditioning system for seven animal rooms./The Jackson Laboratory, Bar Harbor, Maine</p> <p>Included facilities for animal room./U of Maine, Orono, Maine</p>	<p>1961</p> <p>1963</p> <p>1965</p> <p>1965</p> <p>1965</p>	<p>\$70,200</p> <p>\$551,084</p> <p>\$25,000</p> <p>\$70,000</p> <p>\$962,763</p>	<p>The Jackson Laboratory</p> <p>Bates College</p> <p>The Jackson Laboratory</p> <p>The Jackson Laboratory</p> <p>U of Maine</p>

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>THE OFFICE OF JAMES R. EDMUNDS, JR.</u> 1025 St. Paul St Baltimore, Md. 21202</p> <p>Basement level animal rooms for ophthalmological research</p>	<p>This area has its own loading dock. Contains rooms for small animals and sheep, preparation rooms, diener's lockers, cleanup and sterilizing room, operating rooms, and feed and bedding storage. Approx 3,200 sq ft--expandable. High velocity, all-outside air conditioning system with pressures balanced to help control cross infection./Woods Bldg (adjacent to Wilmer Ophthalmological Institute), Baltimore, Md.</p>	1964	\$125,000	The Johns Hopkins Hospital
<p>Animal rooms for pediatrics research</p>	<p>Contains rooms for small animals (with ante-rooms), preparation and surgery, isolation, cleanup and sterilizing, diener's lockers, and feed and bedding storage. Approx 3,800 sq ft. High velocity, all-outside air conditioning system with pressures balanced to help control cross infection and odor./Children's Medical and Surgical Center, Baltimore, Md.</p>	1965	\$140,000	The Johns Hopkins Hospital
<p><u>FISHER, NES, CAMPBELL & PARTNERS, ARCHITECTS</u> 2120 N Charles St Baltimore, Md. 21218</p> <p>Addn to existing 12-story lab bldg</p>	<p>Area: 1,200 sq ft. Air-conditioned, temp controlled spaces for micropathol study of chickens./The Johns Hopkins U, Wolfe and Madison Sts, Baltimore, Md. 21205</p>	1962	\$45,000	The Johns Hopkins U
<p>Alteration of existing bldg</p>	<p>Area: 4,000 sq ft. Air-conditioned, temp and sound controlled. For study of psychological</p>	1962	\$40,000	Pavlovian Institute The Johns Hopkins U

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>FISHER, NES, CAMPBELL & PARTNERS,</u> <u>ARCHITECTS (Contd)</u> Alteration of existing bldg (Contd)	animal and human behavior. Type of animals: dogs./The Johns Hopkins U, Washington and Medi- son Sts, Baltimore, Md. 21205			
<u>JOHANNES AND MURRAY & ASSOCIATES</u> 855 Pershing Drive Silver Spring, Md. 20910	Two bldgs for research in swine; 10,000 sq ft. /Agronomy-Dairy, Dairy Forage Research Farm, Ellicott City, Md.	1961	\$12,000	U of Md.
Swine research unit Heavy research lab	Two units of 10,000 sq ft each for research on all types of animals under controlled condi- tions./U of Md., College Park, Md.	1965	Unit A: \$250,000 Unit B: \$100,000	U of Md.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>H. PETER KLEIN, AIA 34 Fletcher Rd Bedford, Mass.</p> <p>Retina Foundation expansion, 1964-66</p>	<p>Med research facility. Total of 77,000 sq ft. Admin, library, dining, guestrooms: 7,500 sq ft in semi-detached bldg. Animal area: 6,800 sq ft at ground floor of lab bldg. Lab area: 62,700 sq ft on four floors. Net/gross ratio of typical lab floor: 81%. Lab floor layout changeable. Utilities, lighting, HVAC installations, fume hoods and constant temp rooms can be moved. Protection against outside and inside vibration to electron microscopes throughout. After two years of operation, bldg has been expanded horizontally and can be expanded vertically by two addnl floors. Cost per gross sq ft: \$45. Cost per net research sq ft (fully equipped): \$67. Use: corneal research, clinical eye research, connective tissue research, muscle research./Retina Foundation, Institute of Biological and Medical Sciences, 20 Staniford St, Boston, Mass.</p>	1966	<p>Total: \$3,500,000 Animal area: \$35 per sq ft</p>	Retina Foundation (Dr. Endre Balazs, President)
<p>ANDERSON BECKWITH AND HATFIELD 11 Beacon St Boston, Mass. 02108</p> <p>Embryol lab, Carnegie Institution of Washington</p>	<p>Animal area: 7,000 sq ft. Research area: 21,000 sq ft. Total bldg (including garage): 50,000 sq ft. Percentage of animal space to total: 14%/115 W University Parkway, Baltimore, Md.</p>	1961	<p>Total: \$1,359,000 Animal area: 107</p>	Carnegie Institution of Washington

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>PERRY, DEAN, HEPBURN AND STEWART, ARCHITECTS 955 Park Square Bldg Boston, Mass. 02116</p> <p>Biol bldg</p>	<p>For research and teaching. A 3-story structure, with basement, of concrete frame and brick veneer. Area: 48,000 sq ft. Animal facility: 25% of area./Rutgers, The State U, New Brunswick, N.J.</p>	1962	<p>Total: \$1,100,000 Animal area: \$275,000</p>	Rutgers, The State U (Dr. Mason W. Gross, President)
<p>Dana Biology Bldg</p>	<p>For research and teaching. A 3-story bldg, with basement and brick veneer. Area: 16,000 sq ft. Animal facility: 25% of area./Tufts U, Medford, Mass.</p>	1963	<p>Total: \$500,000 Animal area: \$125,000</p>	Tufts U (Donald W. Korth, Jr., Director of Physical Plant Development)
<p>Psychol lab</p>	<p>For study of human and animal behavior. A 4-story, concrete frame and brick veneer structure. Area: 40,000 sq ft. Animal facility: 25% of area./Brown U, Providence, R.I.</p>	1963	<p>Total: \$1,225,000 Animal area: \$300,000</p>	Brown U (Dr. Barnaby C. Keeney, President)
<p>RISKIN & FRIED 262 Washington St Boston, Mass. 02108</p> <p>Pathol labs</p>	<p>Includes hematology, parasitology, histology, autopsy, research and intern training labs, cold storage rooms; third floor addn to existing bldg. Area: 5,000 sq ft./180 Longwood Ave, Boston, Mass.</p>	1962	<p>\$200,000 (including equipment)</p>	Angell Memorial Animal Hospital
<p>Remodeled existing facilities and provided new facilities in research bldg</p>	<p>Includes dog wards, cat wards, bird ward, examination rooms, pharm, surgery, sterilizing, central supply, purchasing dept, preparation and recovery wards, X-ray room, and dark room. Area: 12,000 sq ft./180 Longwood Ave, Boston, Mass.</p>	1965	<p>\$300,000 (including equipment)</p>	Angell Memorial Animal Hospital

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>HUGH STUBBINS & ASSOCIATES, INC</u> 806 Massachusetts Ave Cambridge, Mass. 02139</p> <p>New England Regional Research Center</p>	<p>Gross area: 54,340 sq ft. Two floors plus mech penthouse; high degree of flexibility. Rooms: X-ray, dark, electrical repair, quarantine, employees' lockers, showers, lounge. Operating suites and supporting facilities, vet hospital and wards, necropsy suite, nutrition lab, food storage and workshop, and cage washing facilities. Completely air-conditioned with two independent systems (animals/people) with no recirculation. Structure: concrete, with exterior walls of brick, interior walls of masonry block, finishes of oak, walls of ceramic tile, and sprayed-on glazed surfacing. /Southborough/Marborough, Mass.</p>	1966	\$1,855,000	Harvard Medical School

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>THE ARCHITECTS COLLECTIVE INC, <u>ARCHITECTS-ENGINEERS-PLANNERS</u> 23363 West Seven Mile Rd Detroit, Mich. 48219</p>	<p>Contains cage room, cage wash area, and lab facilities./The U of Mich., Ann Arbor, Mich.</p>	1962	\$30,000	The U of Mich.
<p>Pharm research bldg</p> <p>Lab and zoological museum</p>	<p>For research in biosystematics. Provides live rooms and aquaria, exptl labs, range space, and tech facilities./The U of Mich., Ann Arbor, Mich.</p>	1963	\$1,000,000	The U of Mich.
<p>GIFFELS & ROSSETTI, INC 1000 Marquette Bldg Detroit, Mich. 48226</p> <p>Animal quarters</p>	<p>Operating facility for research in health and hygienic products, surgical dressings, sutures, etc. Total area: 40,000 sq ft. One hundred scientists and technicians. Biochem, bacteriol, toxicol, etc./Barrington, Ill.</p>	1962	\$1,500,000	Kendall Co. Research Center
<p>HARLEY, ELLINGTON, COWIN AND <u>STIRTON, INC</u> 153 E Elizabeth St Detroit, Mich. 48201</p> <p>Vet clinic for animal hospital and teaching lab for use by College of Veterinary Medicine</p>	<p>Area: 178,600 sq ft. Reinforced concrete. Three wings and adjacent pathol bldg built around lab-office-classroom bldg. One wing for study of large animals; second wing for small animals; third wing houses a 500-seat auditorium./Mich. State U, East Lansing, Mich.</p>	1965	\$3,960,000	Mich. State U

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>HARLEY, ELLINGTON, COWIN AND STURTON, INC (Contd)</p> <p>Leukemia transmission bldg</p>	<p>Research facility for study of leukemia transmission through weaned and adult canines infected with leukemia materials. Area: 5,800 sq ft. Masonry bearing walls. Stringent disease control measures embodied./Mich. State U, East Lansing, Mich.</p>	<p>1965</p>	<p>\$170,300</p>	<p>Mich. State U</p>
<p>Toxicology lab</p>	<p>Contains small animal quarters and lab facilities for research on new products. Total area: 34,200 sq ft. Animal space: 10,700 sq ft. Research space: 12,000 sq ft. Area for offices, backup facilities and mech equipment: 11,500 sq ft. Percentage of animal space to total: 31.3%. Precast concrete columns and roof (double T's) and block walls. Rigid temp and humidity control year round with 100% air exhaust in lab and animal quarters. Special finishes and construction details provide for easy cleaning and control of inspection./Midland, Mich.</p>	<p>1966</p>	<p>Total: \$949,562 Building: \$778,092 Lab and Equipment: \$171,470</p>	<p>Dow Chemical Co.</p>
<p>ALBERT KAHN ASSOCIATED ARCHITECTS & ENGINEERS, INC New Center Bldg Detroit, Mich. 48202</p>	<p>Area: 61,252 sq ft. Contains 46 labs for research equipment and personnel in connection with chem and biol departments, plus 20 rooms for animal expt. Optimum size galley-type office-lab unit on three upper floors. Two large undergraduate teaching labs on ground floor. Structural elements smooth, poured-in-place</p>	<p>1961</p>	<p>\$1,900,000</p>	<p>Wayne State U</p>
<p>Life Sciences Research Center Bldg</p>				

Architects and projects	Description/location	Completed	Approximate cost	Clients
ALBERT KAHN ASSOCIATED ARCHITECTS (Contd)				
Life Sciences Research Center Bldg (Contd)	white cement. Concrete wall panels faced with white quartz. Completely air-conditioned with no air recirculated. Basement facilities include animal quarters, physiol, endocrinol, and insectary./Detroit, Mich.			
Food Science Research Bldg	Area: 120,000 sq ft. A 3-story bldg with basement; reinforced concrete with brick walls. Air-conditioned. For studies of food poisoning, food spoilage, chem additives, food preservation, sanitation techniques, food quality and standards. Bldg includes animal rooms, a multiple-use taste panel room, 50-ft high drying tower, and an underground Cobalt-60 chamber housing a 50,000 curie source for use in radiation research./East Lansing, Mich.	1966	\$4,500,000	Mich. State U
Natural Resources Bldg	Area: 140,000 sq ft. A 4-story reinforced concrete bldg with brick walls. Air-conditioned. Contains lab and teaching facilities for all phases of forestry and conservation. Includes facilities to house animals used in forestry research projects./East Lansing, Mich.	1966	\$4,000,000	Mich. State U
Sinai Hospital med research bldg	Area: 22,000 sq ft. A 4-story bldg with basement. Construction: reinforced concrete frame, brick and precast concrete exterior. Contains five animal rooms for guinea pigs, rabbits, mice, cats, etc, one dog room (24 cages, eight dog run cages), one dog metabolism room, one radiation lab, one irradiated animal room, one	1966	\$1,713,000	Sinai Hospital

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>ALBERT KAHN ASSOCIATED ARCHITECTS</u> (Contd)				
Sinai Hospital med research bldg (Contd)	cage washing room, one quarantine room (16 cages), one clinical pathol and food preparation room./Detroit, Mich.			
<u>SMITH, HINCHMAN & GRYLLS ASSOCIATES, INC</u> 3107 W Grand Blvd Detroit, Mich. 48202				
Virus vaccine production units	Area: 62,900 sq ft./Detroit, Mich. *	1961	\$2,829,149	Parke-Davis & Co
Vivarium	Area: 12,000 sq ft./Ann Arbor, Mich. *	1961	\$446,000	Veterans Administration
Vivarium	Area: 12,000 sq ft./Dearborn, Mich. *	1961	\$422,000	Veterans Administration
Bioastronautics lab	Area: 40,700 sq ft./San Antonio, Texas *	1963	\$960,000	Brooks AFB
Biodynamics lab	Area: 33,300 sq ft./San Antonio, Texas *	1963	\$660,000	Brooks AFB
Vivarium lab	Area: 24,700 sq ft./San Antonio, Texas *	1963	\$860,000	Brooks AFB
Bionucleonics lab	Area: 38,300 sq ft./San Antonio, Texas *	1963	\$1,800,000	Brooks AFB
Bioastronautics research lab	Area: 10,000 sq ft, plus alterations. *	1963	\$600,000	Holloman AFB
Bio-systems lab	Area: 22,000 sq ft./San Antonio, Texas *	1964	\$1,600,000	Brooks AFB
Vivarium lab	Area: 20,000 sq ft./Dayton, Ohio *	1964	\$832,000	Wright-Patterson AFB
Med research bldg	Area: 95,800 sq ft./Detroit, Mich. **	1965	\$3,100,000	Wayne U
Dental sch	Area: 295,000 sq ft./Ann Arbor, Mich. **	-	\$14,000,000	U of Mich.

* Campus type--single story

** High rise type

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>TREND ASSOCIATES, INC</u> 4502 W Main St Kalamazoo, Mich. 49007</p> <p>Bldg for production of clinical mice</p>	<p>Area: 28,000 sq ft. Masonry construction. Each area separately heated, ventilated, air-conditioned, and humidity controlled. Animal space: 18,000 sq ft. Research space: 2,400 sq ft. Percentage of animal space to total: 64%./9801 Shaver Rd, Portage, Mich.</p>	1964	\$500,000	Carworth of Michigan, Inc (subsidiary of Becton, Dickinson & Co)
<p><u>KENNETH C. BLACK ASSOCIATES, INC</u> 715 Stoddard Bldg Lansing, Mich. 48933</p> <p>Research animal facility</p>	<p>Primarily for the housing of dogs for use in med research. A 4-story bldg with total area of 16,436 sq ft, of which two floors were completed and two floors left in loft storage space for later completion. Completely air-conditioned. Approx 7,000 sq ft of animal space; 1,000 sq ft of research space; balance in storage and mech facilities. Construction: reinforced concrete with brick and block exterior walls. Bldg is attached to University Medical School corridor system./U of Mich. Medical School, Ann Arbor, Mich.</p>	1963	<p>Total: \$500,000 Animal and research areas: \$400,000</p>	The Regents of the U of Mich.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>THE CERNY ASSOCIATES, INC</u> 300 First National Concourse Bldg Minneapolis, Minn. 55402</p>	<p>Research animal lab and dog and small animal rooms. Basement unfinished. Reinforced concrete foundation, frame of concrete steel pan, first floor. Exposed steel joist roof, bearing exterior walls, steel center beam, C.B. painted and brick on walls, cement and quarry tile on floors. Roof: pitch and gravel, 20-year, flat. No windows. Heating by steam from hospital. Complete adjustable air conditioning and ventilation with 100% fresh air; exhaust stack, 18 in. O.D. steel 160 ft high electric from hospital. Total area: 11,977 sq ft. Total cost per square foot: \$15.70./Portland Ave and Fifth and Sixth, Minneapolis, Minn.</p>	1961	\$188,150	Minneapolis General Hospital Research Foundation, Inc
<p><u>HORTY, ELVING & ASSOCIATES, INC</u> 245 Marquette Ave Minneapolis, Minn. 55401</p> <p>Addn to applied med and research facility</p>	<p>Addn consists of 2,500 sq ft, or a total of 4,200 sq ft of usable space. Original areas were finished with suspended acoustical and gypsum board ceilings and plastered and gypsum board walls. New and existing animal rooms and "wet areas" finished with "Sanitile", a roll-or brush-on surfacing impervious to steam and most acids, and completely waterproof. Flooring is of "Monile", a trowel-on latex type flooring with same qualities as the wall surfacing. Two animal rooms of 185 sq ft each (9% of total area) are provided. This does not</p>	1966	\$172,300	The Swedish Hospital

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>HORTY, ELVING & ASSOCIATES, INC</u> (Contd) Addn to applied med and research facility (Contd)	<p>include two small animal isolation rooms of 64 sq ft each. Facility located on 11th floor of The Swedish Hospital; previously the roof area. Roof deck construction reinforced concrete slabs; exterior walls of brick with block and backup. Interior partitions of 5/8 in. waterproof 1-hour rated gypsum board on steel studs, ceiling lay-in acoustical tile (for access) and gypsum board with finishes noted above in wet areas. All casework is completely plastic-clad with acidproof tops./914 S Eighth St, Minneapolis, Minn.</p>	1962	Total: \$350,000 Animal area: \$89,000	Mount Sinai Hospital
<u>LIENENBERG, KAPLAN, GLOTTER AND ASSOCIATES, INC</u> 51 S 13th St Minneapolis, Minn. 55404 Jay Phillips Research (Animal) Laboratory	<p>Research area: 7,780 sq ft. Mech and offices: 2,240 sq ft. Loading dock: 310 sq ft. Designed for future second-floor expansion. Reinforced concrete and masonry. Includes animal research lab, optical, balances, gas analysis, sterilizing rooms, physiol (surgery), labs, office space, accessory services, and dog kennels. Animal space: 785 sq ft, or 10% of total. Research space: 6,995 sq ft. Tunnel to blood bank. Total project value: \$319,226. Cost per square foot: \$36./22d and Chicago, Minneapolis, Minn.</p>			

Architects and projects	Description/location	Completed	Approximate cost	Clients
CAVIN AND PAGE, ARCHITECTS 325 Cedar St St. Paul, Minn. 55101	Phase III./U of Minn., Minneapolis, Minn.	1962	\$250,000	U of Minn. Dept of Plant Services
Jackson Hall remodeling	/Hennepin County General Hospital, Minneapolis, Minn.	1964	\$500,000	Dr. John Hagin, Director, Minneapolis Medical Research Foundation
Hyperbaric research center	/Minneapolis, Minn.	1965	\$400,000	U of Minn. and Minn Natural History Museum
Natural History Museum and animal lab addn	Area: 12,000 sq ft. Animal procedure rooms: 5,000 sq ft./U of Ky. Medical School, Lexington, Ky.	1961	\$22,000,000	State of Kentucky
ELIEREE ARCHITECTS 333 Sibley St St. Paul, Minn. 55101	Area of animal housing: 11,200 sq ft. Area of animal research labs: 3,000 sq ft./U of Minn., Minneapolis, Minn.	1961	\$2,000,000	State of Minnesota
Animal housing	Area: 8,000 sq ft./St. Luke's Hospital, Cleveland, Ohio	1962	\$200,000	St. Luke's Hospital
Med sch addn	Area of animal housing and animal research labs: 25,700 sq ft./Tulane U, New Orleans, La.	1963	\$7,000,000	Tulane U
Education and research bldg	Animal and animal research space: 15,000 sq ft./St. Paul-Ramsey Hospital, St. Paul, Minn.	1965	\$16,000,000	City of St. Paul and Ramsey County

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>ELLERBE ARCHITECTS (Contd)</u> Burns Institute <u>HAMEL GREEN AND ABRAHAMSON, INC</u> 2675 University Ave St. Paul, Minn. 55114 Lyon Laboratory	A burn care specialty-type facility. Animal space: 2,625 sq ft. Research space: 9,585 sq ft. Animal space is 3.6% of total of 72,926 sq ft./Galveston, Texas Convection of 8,300 sq ft of floor area of existing bldg for advanced research using mice. Special animal environmental spaces, recorder and computer systems (computer not part of project)./U of Minn., Minneapolis, Minn.	1966	\$2,500,000	Shriners Hospital for Crippled Children
Completed vet basic science bldg	Completed 5,950 sq ft of unfinished space in existing bldg for research and teaching spaces. Medium-sized animals such as dogs and calves. /St. Paul, Minn.	1966	\$65,450	U of Minn.
Animal facilities bldg	Research and holding area: 4,845 sq ft. For cows and calves. Brick exterior and tile interior masonry walls, wood frame roof, and concrete floor. One story./St. Paul, Minn.	1966	\$60,000	U of Minn.
Addn to vet basic science bldg	Addn of 31,970 sq ft. Masonry walls and partitions, and concrete frame. Used for a variety of research and some teaching spaces./St. Paul, Minn.	1966	\$775,000	U of Minn.

Architects and projects	Description/location	Completed	Approximate cost	Clients
THE RALPH M. PARSONS COMPANY PO Box 208 Pass Christian, Miss. 39571 <u>1</u> /				

1/ See Los Angeles, Calif., sheet for home office; also, see New York sheet for Parsons-Jurden Corp, a wholly-owned subsidiary.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>KIVETT AND MYERS, ARCHITECTS-AIA-ENGINEERS 1016 Baltimore Ave Kansas City, Mo. 64105</p> <p>Hospital</p>	<p>A 360-bed general hospital. Animal facility area: 500 sq ft. Research facility area: 12,500 sq ft. Percentage of animal space to total space: 3.8%./4949 Rockhill Rd, Kansas City, Mo. 64110</p>	1962	<p>Total: \$1,199,098 Animal area: \$388,000</p>	Menorah Medical Center
<p>School of Pharmacy</p>	<p>For research and education. Animal facility area: 800 sq ft. Research facility area: 3,300 sq ft. Percentage of animal space to total space: 19.5%./50th and Rockhill Rd, Kansas City, Mo. 64110</p>	1965	<p>Total: \$733,011 Animal area: \$122,400</p>	U of Mo., Kansas City
<p>Volker Research Bldg; H. S. Truman Research Labs</p>	<p>For special research programs. Animal facility area: 225 sq ft. Research facility area: 3,100 sq ft. Percentage of animal space to total space: 6.8%. Includes live animal room and climatic insectary for raising and studying mosquitoes. Two research labs for study of infected animals./2322 Holmes St, Kansas City, Mo. 64108</p>	1965	\$83,141	General Hospital and Medical Center
<p>HAMMOND, CHARLE & BURNS 1876 Arcade Bldg St. Louis, Mo. 63101</p>	<p>Animal area: 8,500 sq ft. Lab area: 2,000 sq ft./U of Mo., Columbia, Mo.</p>	1963	\$100,000	U of Mo.
<p>Animal holding bldg</p>	<p>Animal area: 9,000 sq ft. Lab area: 48,000 sq ft. Mech area: 3,000 sq ft./U of Mo. Medical School, Columbia, Mo.</p>	1965	\$1,500,000	U of Mo.
<p>Research addn to med sciences bldg</p>				

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>HAMMOND, CHARLIE & BIRNS (Contd)</u> Psychol animal research bldg	Animal area: 4,000 sq ft. Lab area: 7,000 sq ft. Mech area: 1,000 sq ft./U of Missouri, Research Park, Columbia, Mo.	1965	\$400,000	U of Mo.
Med research bldg	Animal area: 17,000 sq ft. Lab area: 27,000 sq ft. Audit, mech area: 14,000 sq ft./Kings-highway and Parkview, St. Louis, Mo.	1966	\$2,750,000	Jewish Hospital
<u>SVERDRUP & PARCEL AND ASSOCIATES, INC., ENGINEERS-ARCHITECTS</u> 915 Olive St St. Louis, Mo. 63101 Cardiovascular research center	Includes animal operating rooms and chem and electronic labs related to animal research. Areas are in several bldgs. Square footage not available./221 N Grand Ave, St. Louis, Mo.	1962	\$125,000	St. Louis U
Addn to fifth floor, St. Louis U Medical School	For animal housing and research. Rooms: animal, isolation, operating, cage washing, sterilization, doctors' offices. Also includes vet suite, research areas, and runs. Animal space: 12,000 sq ft. Research space: 11,272 sq ft. Percentage of animal space to total space, approx 50%./221 N Grand Ave, St. Louis, Mo.	1965	\$750,000	St. Louis U

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>J. G. LINK & CO PO Box 1313 Billings, Mont. 59103</p> <p>Vet research lab and Livestock Sanitary Board diagnostic lab</p>	<p>Area: 30,000 sq ft. Steel joists, beams, columns of face brick and concrete block. Control of air pressure by system of airlocks prevents circulation of live virus. Electronic filters, chlorinators, refrigerants, deep freeze equipment, incubators, incinerators for any size animal. For research of animal diseases. /Bozeman, Mont.</p>	1961	First phase: \$900,000	Montana State: Montana State U and State Livestock Sanitary Board
<p>Isolation bldg for vet research lab</p>	<p>Includes manure pits. Controlled air pressure. Area: 3,400 sq ft./Bozeman, Mont.</p>	1966	\$100,000	Montana State U
<p>FOX, BALLAS, BARROW, AIA, ARCHITECTS 614 Savings Center Bldg Missoula, Mont. 59801</p>				
<p>US Public Health Service Laboratory</p>	<p>A new bldg constructed and equipped for housing and working with infectious research of animals with various degrees of contagion. Also for breeding of and research with various insects--mosquitos, mites, ticks, etc. Total area: 28,000 sq ft. Animal and insect space: 18,540 sq ft./Hamilton, Mont.</p>	1964	\$548,861	US Public Health Service

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>SCHAUMBERG & FREEMAN</u> 914 Federal Securities Bldg Lincoln, Nebr. 68508</p> <p>Animal research facilities</p>	<p>Area: 40,000 sq ft. Plant is used partly for production of biol products for vet med. Animal quarters consist of animal rooms, lab, and storage and cleaning areas. Completely air-conditioned. Bldg is 1-story with basement. Concrete./Cornhusker Hwy and Jersey St, Lincoln, Nebr.</p>	1961	\$575,000	Norden Labs, Inc (subsidiary of Smith Kline & French of Philadelphia, Pa.)
<p>Animal isolation and research bldg</p>	<p>Adjacent to main plant. Consists of office-lab, storage, and animal rooms. Area: 2,400 sq ft. Completely air-conditioned./Cornhusker Hwy and Jersey St, Lincoln, Nebr.</p>	1962	\$70,000	Norden Labs, Inc (subsidiary of Smith Kline & French of Philadelphia, Pa.)
<p>Animal isolation and research bldg</p>	<p>Adjacent to main plant and similar to two projects above. Area: 3,000 sq ft./Cornhusker Hwy and Jersey St, Lincoln, Nebr.</p>	1964	\$75,000	Norden Labs, Inc (subsidiary of Smith Kline & French of Philadelphia, Pa.)
<p><u>LEO A. DALY & ASSOCIATES</u> 8600 Indian Hills Drive Omaha, Nebr. 68114</p> <p>Research center</p>	<p>For study of anatomy, biol, biochem, physiol, microbiol, med, pathol, surgery and operating techniques. Six-story structure with 39,400 sq ft. One floor devoted to animal research with cages and runs. Reinforced concrete frame with face brick and glass panels and exposed concrete columns. Animal research: 4,446 sq ft. Med research: 21,329 sq ft. Ratio of animal space to total space: 11.3%/Creighton U, Omaha, Nebr.</p>	1963	\$1,150,000	Creighton U

NEBRASKA (Contd)

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Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>LEO A. DALY & ASSOCIATES (Contd)</u> Clinic for thoroughbred horses	Clinic associated with race track./Absarben Race Track, Omaha, Nebr.	1964	\$90,000	Knights DF Absarben

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>ROGER LEE ASSOCIATES</u> PO Box 2295 Stateline, Nev. 1/				

1/ See San Francisco, Calif., sheet for home office.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>W. O. BIERNACKI-PORAY, AIA</u> 26 Park St Montclair, N.J. 07042 American Research Hospital for Children	/Medical Academy, Krakow, Poland	1966	Hospital: \$13,500,000 Animal area: \$875,000	The American Research Hospital in Poland, Inc, 8 W 40th St, New York, N.Y.
<u>MCDOWELL-GOLDSTEIN ASSOCIATED ARCHITECTS</u> Hilltop Morristown, N.J. 07960 Animal care unit	(Architects visited about one-third of med schs in U.S., as well as corporate and institutional research facilities)./Rutgers Medical School, New Brunswick, N.J. 08903 (University Heights Campus)	1965	-	The State U, Rutgers, New Brunswick N.J. (Dr. M. W. Gross, President)
Facilities for research using dogs <u>WIGTON-ABBOTT CORPORATION</u> 1225 South Ave Plainfield, N.J. 07061 Institute for Cancer Research	/The Seeing Eye, Inc, Morristown, N.J. Total area: 95,000 sq ft. Includes 60,000 sq ft of animal area and one-quarter million mice, guinea pigs, rabbits, chickens, monkeys, and dogs./Rye, N.Y.	1965	-	The Seeing Eye, Inc Morristown, N.J.
Research lab	Total area: 30,000 sq ft. Animal area: 25,000 sq ft. Contains dogs, squirrels, monkeys, and other small animals./Cranbury, N.J.	1963 (Added to in 1965)	\$1,250,000	Carter Products

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>WIGTON-ABBOTT CORPORATION (Contd)</u>				
Research lab--Bldg No 58	Area: 56,500 sq ft. Animal area: 24,000 sq ft. Animals: rats, rabbits, monkeys, cats, and dogs. Immunology, bacteriology, parasitology, pharm, pathol, microbiol, biochem./Nutley, N.J.	Alterations: 1963 (Initial work done in 1960)	\$2,500,000	Hoffman-LaRoche, Inc
Research lab	Total area: 12,600 sq ft. Includes 2,500 sq ft of animal area for dogs, rats, mice, and rabbits./Dublin, Ohio	1965	\$540,000	Warren Teed Pharmaceutical, Inc
Biol research lab	Total area: 62,584 sq ft. Animal quarters: 5,000 sq ft. Toxicology, pathol, pharm./Wilmington, Del.	1965	\$2,200,000	Atlas Chemical Industries
Research tower--Bldg No 76	Total area: 334,000 sq ft. Includes 23,000 sq ft of animal rooms for monkeys, dogs, cats, rats, mice, guinea pigs, and rabbits./Nutley, N.J.	1965	\$14,600,000	Hoffmann-LaRoche, Inc
Research lab	Total area: 100,000 sq ft. Animal area: 75,000 sq ft. Bldg devoted to toxicology, biochem, and pathol./New Brunswick, N.J.	1966	\$5,000,000	E. R. Squibb & Sons
Research center	Total area: 140,000 sq ft. Animal area: 15,000 sq ft. Growth sciences center./Libertyville, Ill.	1966	\$5,000,000	International Minerals & Chemical Corp

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>FERGUSON, STEVENS, MAILLORY & PEARL</u> 115 Amherst Drive, SE Albuquerque, N. Mex. 87106</p> <p>Facility to study effect of inhalation of radioactive isotopes</p>	<p>Manufacture of aerosol units holding isotopes; exposure of animals; research labs; facilities for surgery, autopsy, X-ray and biometrical analysis of results. Houses 1,000 beagles for breeding and observation. Controlled environment with close tolerances on temp control. Facilities for food preparation, hospitalization, isolation. Total area: 64,000 sq ft plus 22,000 sq ft of dog runs. Research area: 40,000 sq ft. Animal area: 23,200 sq ft. Concrete runs with radiant heat, etc.: 21,600 sq ft. Percentage of animal facility to total: 37%. Facility is 1 story, air-conditioned, with controlled air flows. Epoxy coated surfaces./Sandia Base, Albuquerque, N. Mex. (Atomic Energy Commission)</p>	1965	<p>Total: \$3,000,000 Animal area: \$1,500,000</p>	Lovelace Foundation
<p><u>W. C. KRUGER & ASSOCIATES, ARCHITECTS-ENGINEERS, INC</u> PO Box 308 Santa Fe, N. Mex. 87501</p> <p>Chimpanzee consortium--Project HO 125-5</p>	<p>Part 1: chimpanzee breeding colony area approx 500 ft in diameter. An observation and treatment bldg constructed on the perimeter of the area. The area has a 10-ft-high security fence, water-filled moat with recirculating system, site grading of area adjacent to moat, and 10 small animal sheds. The treatment bldg contains 3,200 sq ft with chimpanzee shelter rooms, observation rooms, etc./Holloman AFB, N. Mex.</p>	1966	\$250,000	US Air Force

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>THOMAS JUSTIN IMBS AND ASSOCIATES</u> 225 Delaware Ave Buffalo, N.Y. 14202	Total area: 14,000 sq ft. Contains breeding rooms, dissecting room, lab, and autoclaving and sterilizing rooms. Cost: \$18.32 sq ft including fixed equipment (cage, bottle and rack washers). West Seneca, N.Y.	1961	\$270,694	Health Research, Inc, Roswell Park Memorial Institute
<u>ARMAND BARTOS AND ASSOCIATES,</u> <u>ARCHITECTS</u> 200 Madison Ave New York, N.Y. 10016	Germfree research labs, Van Etten Hospital Germfree isolator rooms and related labs. Net space: 3,034 sq ft./Bronx Municipal Hospital Centre, Bronx, N.Y. Germfree isolator rooms and related labs and support facilities. Total gross area of project: 24,790 sq ft./Morris Park Ave and Eastchester Rd, Bronx, N.Y.	1964	\$76,470	Albert Einstein College of Medicine
Seventh floor alterations, science bldg Ullmann Research Center for Health Sciences	Research space: 110,000 net sq ft, of which approx 30,000 net sq ft is devoted to animal quarters and related facilities. Total gross area: 202,000 sq ft./Morris Park Ave and Eastchester Rd, Bronx, N.Y.	1965	Total: \$8,000,000 Animal area: \$1,596,000	Albert Einstein College of Medicine
<u>CHAPMAN, EVANS AND DELEHANTY</u> <u>New York, N.Y. 1/</u> Animal med center	Composed of two animal health and research organizations, The Ellen Prince Speyer Hospital	1962	\$2,810,500	The Animal Medical Center

1/ Firm dissolved. Successor firms: EVANS & DELEHANTY 51 Madison Ave New York, N.Y. 10010
HENRY OTIS CHAPMAN & ASSOCIATES 135 E 44th St New York, N.Y. 10017

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>CHAPMAN, EVANS AND DELEHANTY</u> (Contd)</p> <p>Animal med center (Contd)</p> <p><u>de YOUNG & MOSCOWITZ</u> 205 E 42d St New York, N.Y. 10017</p> <p>Public Health Research Labs</p>	<p>and the Margaret M. Caspary Institute for Veterinary Research. Bldg area: 68,806 sq ft. Floor above ground level is the hospital. The smaller tower floors are for special care, highly infectious diseases and research./Franklin D. Roosevelt Drive, 61st to 62d Sts, New York, N.Y.</p>	1966	<p>Total: \$20,000,000 Animal area: \$2,000,000</p>	<p>City of New York Dept of Health, Division of Labs, and Public Health Research Institute</p>
	<p>Designed for research and testing by the Dept of Health of the City of New York, and by the Public Health Research Institute. The research functions are distributed by floors. Bldg is fully equipped with mech and elec facilities including electron microscopes, X-ray, isotope facilities, temp controlled rooms and boxes from -150 F to +100 F, centrally monitored, and glassware washing and sterilizing with a capacity of 26,000,000 pieces per year. Five kinds of water circulate in the bldg. Completely air-conditioned. Bldg 14 stories high, of steel frame and poured-in-place concrete floor construction. Exterior of brick and stone. Research area: 250,000 sq ft. Animal area: 20,000 sq ft. Total area: 345,000 sq ft. Percentage of animal space to total: 6%./First Ave between E 26th and 27th Sts, New York, N.Y. 10010</p>			

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>FORDYCE & HAMBY ASSOCIATES</u> 717 Fifth Ave New York, N.Y. 10022</p> <p>Institute for basic research in mental retardation</p>	<p>Purpose to provide facilities for basic research in mental retardation. A 5-story lab tower for study of biometrics, genetics, biophysics, metabolism, psychol., biochem, pharmac., microbiol., and pathol. Includes animal quarters, wards for patients and admin offices. Animal area: 7,500 sq ft. Percentage of animal space to total research space: 8.5%. Research: 90,000 sq ft. Total project: 200,000 sq ft. Animal quarters designed for up to and including primates. Separate clean and unclean areas, vet and admin office, diet kitchen, records office and storage, personnel lockers, and pass-through rack and cage washers. Concrete perimeter bearing wall, steel core and floor structure./Forrest Hill Rd, Staten Island, N.Y.</p>	1966	<p>Total: \$9,000,000 Animal area: \$250,000</p>	Mental Hygiene Facilities Improvement Fund
<p><u>GOLDSTONE & DEARBORN</u> 104 E 40th St New York, N.Y. 10016</p> <p>Bronx Zoo nursery bldg</p>	<p>One-story bldg for care and educational display of baby animals. Area: 800 sq ft./Bronx Park Zoo, New York, N.Y.</p>	1962	\$37,000	New York Zoological Society, 630 Fifth Ave, New York, N.Y.
<p>Aquatic bird house</p>	<p>Structure contains 14,000 sq ft and is 1-1/2 stories high with basement. For care and exhibition of water birds in 12 large habitat groups./Bronx Park Zoo, New York, N.Y.</p>	1964	\$560,000	New York Zoological Society

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>GOLDSTONE & DEARBORN</u> Animal behavior lab	Research, lab and office facilities contained in 2-story bldg. Area: 2,400 sq ft./Bronx Park Zoo, New York, N.Y.	1966	\$58,000	New York Zoological Society
Osborn Labs of Marine Sciences	Two-story and basement bldg for research in marine chem, genetics, biol., and physiol. Area: 10,800 sq ft./Coney Island, Brooklyn, N.Y.	1966	\$1,180,000	New York Zoological Society
<u>PARSONS-JURDEN CORPORATION</u> 26 Broadway New York, N.Y. 10004 1/	Biol agent development pilot line facility	1962	\$2,800,000	Corps of Engineers
Mammalian genetics lab	Modified and refurbished existing structures. For studies of biol processes. Total area: 11,000 sq ft. Animal area: 4,000 sq ft. Research area: 6,000 sq ft. Percentage of animal space to total space: 36%. Reinforced concrete and concrete block./Pine Bluff Arsenal, Ark.	1965	\$1,800,000	Atomic Energy Commission
Cell physiol lab	Rehabilitated from existing structures. For research into the nuclear effects on genetics. Animal area: 7,000 sq ft. Research area: 11,500 sq ft. Percentage of animal area to total area: 37.5%. Reinforced concrete and concrete block./Oak Ridge, Tenn.	1965	\$800,000	Atomic Energy Commission

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>PARSONS-JURDEN CORPORATION (Contd)</u> Biol research lab waste disposal system	A wet disposal system for 100,000 sq ft of animal housing. Animals used for cancer research. Animal area: 100,000 sq ft. Percentage of animal space to total space: 100%. Steel, concrete and concrete block construction./Rockville, Md.	1965	-	Bionetics, Inc.
<u>OFFICE OF ALFRED EASTON POOR</u> 277 Park Ave New York, N.Y. 10017 Queens shelter	/Queens, N.Y.	1962	\$250,000	American Society for the Prevention of Cruelty to Animals
<u>ROGERS, BUTLER & BERGUN</u> 219 E 44th St New York, N.Y. 10017	/1300 York Ave, New York, N.Y. 10021	1961	\$3,105,000	Cornell U Medical College
Samuel J. Wood Library and Research Bldg	/444 E 68th St, New York, N.Y. 10021	1964	\$7,000,000	Memorial Hospital for Cancer and Allied Diseases
Sophie D. and William W. Cohen Research Bldg	/SW Corner of Madison Ave and 105th St, New York, N.Y.	1964	\$5,500,000	New York Medical College
Roswell Park Memorial Institute Cell and Virus Bldgs	/Buffalo, N.Y.	1964	\$4,000,000	New York State Architect

NEW YORK (Contd)

64.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>ROGERS, BUTLER & BURGUN (Contd)</u> William Black Medical Research Bldg 350, 000 sq ft./168th St and Fort Washington Ave, New York, N.Y.</p> <p><u>ISADORE & ZACHARY ROSENFELD ARCHITECTS</u> 45 W 45th St New York, N.Y. 10036</p> <p>Animal research facility</p>	<p>Steel frame and brick bldg of 22 stories, attached to existing med center complex. Area: 350,000 sq ft./168th St and Fort Washington Ave, New York, N.Y.</p> <p>Animal area: 600 sq ft. Operating rooms: 500 sq ft, plus research labs and offices. Total area: 3,600 sq ft; 18% animal space. One-story bldg with basement. Air-conditioned./Stanaford Rd, Beckley, W.Va.</p>	<p>1966</p> <p>1964</p>	<p>-</p> <p>Animal area: \$150,000</p>	<p>College of Physicians and Surgeons, Columbia U</p> <p>Beckley Appalachian Hospital</p>
<p><u>SMITH HAINES LINDERBERG & WAHLER</u> 2 Park Ave New York, N.Y. 10016</p> <p>Agricultural center including research lab</p>	<p>Project contains 15,000 sq ft of space for lab animals. Total area: 232,750 sq ft./Agricultural Center, Princeton, N.J.</p>	<p>1961</p>	<p>-</p>	<p>American Cyanamid Co, Agricultural Division</p>
<p>Virology bldg</p>	<p>Designed for complete isolation of all animal rooms. No interior circulation. All rooms open to outside. Gross area: 14,000 sq ft./West Point, Pa.</p>	<p>1963</p>	<p>\$400,000</p>	<p>Merck Sharp & Dohme Research Division, Merck & Co, Inc</p>
<p>Pathol bldg</p>	<p>Gross area: 35,000 sq ft. Contains animal quarters, work rooms, and labs./West Point, Pa.</p>	<p>1963</p>	<p>\$800,000</p>	<p>Merck Sharp & Dohme Research Division, Merck & Co, Inc</p>

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>SMITH HAINES LUDWIG & WAHLER</u> (Contd)				
Research bldgs No 1 and 2	These bldgs contain space for lab animals. Animal area: 21,000 sq ft. Total area: 117,730 sq ft./Boston, Mass.	1964	\$5,500,000	School of Public Health, Harvard U.
Animal rearing bldg	Devoted exclusively to lab animals in pathogen-free environment. Gross area: 25,000 sq ft./Kalamazoo, Mich.	1965	\$1,000,000	The Upjohn Co
Lovell St research bldg	Total area: 152,305 sq ft. Animal area: 16,000 sq ft. Contains biol labs./Kalamazoo, Mich.	1965	\$5,000,000	The Upjohn Co
<u>W. STUART THOMPSON, ARCHITECT,</u> <u>AIA, AND ASSOCIATES</u> 60 E 42nd St New York, N.Y. 10017	Used for med research. Constructed near the med research lab and connected to the lab by an 8-ft wide passage. All rooms have specially designed air conditioning. Total area of bldg, first floor, 24,000 sq ft. Area of bldg used for animals: approx 15,000 sq ft. Area used for research: approx 9,000 sq ft. Percentage of animal space to total space: 62%/Carter-Wallace Inc, Cranbury, N.J.	1966	Total: \$900,000 Animal area: \$500,000	Carter-Wallace, Inc

Architects and projects	Description/location	Completed	Approximate cost	Clients
VOGEL & STRUNK 101 Park Ave New York, N.Y. 10017				
Hematology research lab	For study of blood diseases. Alterations. /Abraham Jacobi Hospital, New York, N.Y.	1962	\$90,000	New York City Dept of Public Works for Health Research Council, Albert Einstein School of Medicine
Psychol-pharm lab	/Bellevue Hospital, New York, N.Y.	1962	-	New York U School of Medicine
Second Med Div, NIH labs	For research of blood limpid and clotting, and study of strokes and liver diseases. Alter- ation./Bellevue Hospital, New York, N.Y.	1962	\$80,000	Cornell U Medical College
Cardiovascular research labs	/Bellevue Hospital, New York, N.Y.	1962	-	New York U Medical Center
New research bldg for Industrial Medical Research Institute	Total area: 17,000 sq ft. Research area: 9,300 sq ft, or 55% of total. Animal area: 2,000 sq ft, or 12% of total./Sterling Forest, Tuxedo, N.Y.	1962	Total: \$567,000 Animal area: \$50,000	New York U Medical Center
Berg Institute for Experimental Physiology, Surgery & Pathology	New bldg for research labs and animal facili- ties. Area: 11,713 sq ft. Animal area: 10,000 sq ft, or 91% of total./Sterling Forest, Tuxedo, N.Y.	1962	Total: \$338,000 Animal area: \$300,000	New York U Medical Center
Consultation and studies, med research labs	Consisted of alterations and addition. Radio- active isotope lab, hematology renal study lab, gastrointestinal labs./Metropolitan Hospital, New York, N.Y.	1962	\$300,000	New York College of Medicine

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>VOGEL & STRUNK (Contd)</u>				
Med research labs	For hematology and radioactive isotopes. Alteration to lab./Metropolitan Hospital, New York, N.Y.	1963-64	\$90,000	New York Medical College
Alteration to research lab	Lab used for renal function and electrolyte metabolism./Metropolitan Hospital, New York, N.Y.	1963-64	\$30,000	New York City Health Research Council for Dept of Public Works
Alteration for College of Dentistry	Alterations made to three specialized labs. /Carnegie Bldg, 338 E 26th St, New York, N.Y.	1963-64	\$150,000	New York U
General clinical research center	A facility for special patients, labs, research, offices./Metropolitan Hospital, New York, N.Y.	1965	\$100,000	New York Medical College
<u>WECHSLER & SCHIMENTI, ARCHITECTS</u> 118 E 25th St New York, N.Y. 10010				
Converted first and second floors of Brownstone Bldg to vet use	Area: 1,200 sq ft./327 E 65th St, New York, N.Y.	1965	\$30,000	Harold Davis
<u>WAASDORP, NORTHRUP AND KAELEER</u> 740 East Ave Rochester, N.Y. 14607				
Third floor addn, animal house	Contemporary design for radiation biol and biophys studies. Added to existing facilities. Area: 11,950 sq ft./Strong Memorial Hospital, AEP, 260 Crittenden Blvd, Rochester, N.Y.	1961	\$400,000	The U of Rochester
Surgical research	Remodeled offices, operating rooms for surgical research using animals for expts. Area: 4,880	1963	\$121,178	The U of Rochester

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>HAASDORF, NORTERUP AND KAELEER</u> (Contd)				
Surgical research (Contd)	sq ft./Strong Memorial Hospital, AEP, 260 Crittenden Blvd, Rochester, N.Y.			
Verbal behavior lab	Remodeled interior of existing facilities. Research area: 436 sq ft. Animal area: 119 sq ft, or 21½%/River Campus, The U of Rochester, Rochester, N.Y.	1963	\$15,048	The U of Rochester
Brain research facility	One-story concrete temporary bldg. Center core shielded and acoustically isolated. Area: 13,270 sq ft./River Campus, The U of Rochester, Rochester, N.Y.	1964	\$353,500	The U of Rochester
Research bldg	Contemporary design. Pharm research including animal facilities. Area: 33,600 sq ft./Rochester, N.Y.	1965	\$1,176,000	Strasensburgh Division, Wallace & Tiernan, Inc
Wing O-O, animal research facility	Constructed in 7-story radiol-biol lab. Research area: 25,266 sq ft, of which 1,100 sq ft devoted to animal space. Percentage of animal space to total: 3.7%/Strong Memorial Hospital, 260 Crittenden Blvd, Rochester, N.Y.	1966	\$2,000,000	The U of Rochester
<u>GLOSTER & GLOSTER</u> Franklin National Bank Bldg 330 Sunrise Hwy Rockville Centre, N.Y. 11570				
Waldemar Medical Research Foundation facility	This facility was installed at a new bldg. For research in the field of cancerous diseases. Approx 5,000 sq ft of animal space, which includes housing, food storage, breeding, and	1964	Total: \$800,000 Animal area: \$100,000	Waldemar Medical Research Foundation

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>GLOSTER & GLOSTER</u> (Contd) Waldemar Medical Research Foundation facility (Contd)	exptl surgery for mice, rats, chickens, and dogs. The total area consists of 15,000 sq ft. Animal area occupies approx 33-1/3% of the total space./Woodbury, L.I., New York			
<u>KING & KING ARCHITECTS</u> 420 E Genesee St Syracuse, N.Y. 13202				
Biol research labs	/Syracuse U, Syracuse, N.Y.	1962	\$900,000	Syracuse U
Psychol dept animal rooms	/Syracuse U, Syracuse, N.Y.	1962	\$200,000	Syracuse U
Alterations to biol research labs	Renovated animal facilities in existing bldg. Renovated existing space into research labs. Gross area: 9,797 sq ft./Syracuse U, Syracuse, N.Y.	1966	Total: \$1,580,000 Animal area: \$150,000 (includes cost of addn to project in 1967)	Syracuse U
<u>ADLERSTEIN ASSOCIATES ARCHITECTS</u> North Plaza Bldg Valley Stream, N.Y.				
Alteration and enlargement of research facilities	PHASE 1. Conversion of cow barn to horse barn and to areas for lambing and calving. Installed new lab facilities and operating autopsy room. Facilities for 72 horses, 15 pens for lambs, areas for feed storage and cleaning facilities. Lab for blood research and preparation serums. Total bldg area: 11,755 sq ft. Animal area: 1,927 sq ft. Lab area: 828 sq ft. Percentage of animal space to total: 92%.	-	Phase 1: \$301,566 Phase 2: \$828,207	Bureau of Labs
	(Contd)			

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>ADLERSTEIN ASSOCIATES ARCHITECTS</u> (Contd)</p> <p>Alteration and enlargement of research facilities (Contd)</p>	<p>PHASE 2. Alteration and enlargement of 3-story masonry bldg to provide animal rooms and labs. Designed for max flexibility. First floor: glass and cage washing rooms, incinerator, lockers, showers, feed storage, etc. Second and third floors: animal rooms and labs. Completely air-conditioned; 100% fresh air; rooms individually treated. Designed for program including research in rabies, neurol diseases of man and animals, and production of adeno viruses and serum of human and simian origin. Total bldg area: 20,758 sq ft. Animal area: 5,504 sq ft. Lab area: 2,486 sq ft. Percentage of animal space to total space: 27%./Ottisville, N.Y.</p>			
<p><u>E. TODD WHEELER AND THE PERKINS & WILL PARTNERSHIP</u> 55 Church St White Plains, N.Y. 10601</p> <p>Animal research rooms</p>	<p>These rooms included in comprehensive research labs in new west wing./The Memorial Hospital, Worcester, Mass.</p>	1963	Total project: \$2,150,000	The Memorial Hospital
<p>Master plan for relocation of entire College of Veterinary Medicine</p>	<p>Complex: small and large animal clinics and hospitals, basic science bldg, zoonosis research; labs for diagnosis, infectious disease, non-infectious disease. Mex pathogen free. Area: 600,000 sq ft./College of Veterinary Medicine, U of Ill., Urbana, Ill.</p>	1964	-	U of Ill.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>E. TODD WHEELER AND THE PERKINS & WILL PARTNERSHIP (Contd)</u></p> <p>Lab for clinical investigation</p>	<p>Animal care facilities included in 10-floor lab bldg. Gross area: 69,040 sq ft. (Assoc architect with Office of Douglas Orr). /Yale-New Haven Medical Center, New Haven, Conn.</p>	<p>1965</p>	<p>Total bldg: \$2,725,000</p>	<p>Yale U</p>

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>MCMINN, NORFLEET & WICKER</u> 2828 Lawdale Drive PO Box 9456 Greensboro, N.C. 27408</p> <p>Kennel facilities</p>	<p>Includes office, clinic and treatment spaces, and kennels for dogs. Area: 12,000 sq ft. Construction: one story, contemporary, brick and concrete masonry./Durham, N.C.</p>	1965	\$186,000	Duke U
<p><u>JAMES N. SHERRILL, AIA</u> 308 Second St, NW Hickory, N.C. 28601</p> <p>Institute of Biological Sciences</p>	<p>The Institute is a div of the School of Agriculture and Life Sciences. Contemporary. Area: 90,000 sq ft. Zoology area: 9,000 sq ft. Research area: 8,000 sq ft. Animal area: 10% of total./Raleigh, N.C.</p>	1966	\$2,000,000	N.C. State U

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>A. M. KINNEY, INC</u> 2912 Vernon Place Cincinnati, Ohio 45219				
Biol research lab for pharm	Total area: 110,000 sq ft. Animal area: 15,000 sq ft./Elkhart, Ind.	1962	-	Miles Laboratories, Inc
Parasitology research lab	Area: 5,000 sq ft./Ashland, Ohio	1963	-	Hess & Clark
Toxicology lab	Area: 6,000 sq ft./Ashland, Ohio	1964	-	Hess & Clark
Tissue culture biol lab	Area: 55,000 sq ft. Animal area: 17,000 sq ft./Greenfield, Ind.	1964	-	Eli Lilly & Co
Agric and indus product evaluation lab	Area: 20,000 sq ft. Animal area: 12,000 sq ft./Greenfield, Ind.	1964	-	Eli Lilly & Co
Development lab for milk base products	Area: 60,000 sq ft. Animal area: 15,000 sq ft./Columbus, Ohio	1965	-	M & R Dietetic Labs
Biol research lab for pharm	Area: 85,000 sq ft. Animal area: 19,000 sq ft./Cincinnati, Ohio	1965	-	William S. Merrell Co
Co-carcinogenesis research lab	Area: 60,000 sq ft. Animal area: 12,000 sq ft./Oak Ridge, Tenn.	1965	-	US Atomic Energy Commission
Virus control pathogen-free lab	Area: 14,000 sq ft. Animal area: 7,000 sq ft./Oak Ridge, Tenn.	1966	-	US Atomic Energy Commission
The Children's Hospital Institute for Developmental Research	Area: 90,000 sq ft. Animal area: 35,000 sq ft. Eight stories./Cincinnati, Ohio	1966	-	The Children's Hospital
Science and engineering center	Area: 160,000 sq ft. Animal area: 3,000 sq ft./Cincinnati, Ohio	1966	-	U of Cincinnati

Architects and projects	Description/location	Completed	Approximate cost	Clients
THE AUSTIN COMPANY-DESIGNERS AND BUILDERS 3650 Mayfield Rd Cleveland, Ohio 44121 Kettering Hall of Science	A 2-story science bldg for chem and biol depts. Biol Dept contains rooms housing animals for research study. Total area: 76,000 sq ft./Oberlin, Ohio A 2-story pharm research lab. One wing devoted to animal housing and research; the other, to pharm research. Total area: 51,000 sq ft./Richmond, Va.	1961 1962	\$2,000,000 \$2,000,000	Oberlin College A. H. Robins Co, Inc
Research lab Turner Science Hall addn	A 4-story addn to existing Colton Lab Bldg. Area: 22,000 sq ft, including animal housing. Includes phys, chem, and biol labs, and greenhouse./Hiram, Ohio	1964	\$700,000	Hiram College
MORTON LEAVITT, ARCHITECT 1303 Prospect Ave Cleveland, Ohio 44115 Research exptl lab	For small animals. Includes food-cage wash area, air conditioning, special heat controls, day-night cycle lighting. Animal area: 2,266 sq ft. Wash area: 420 sq ft. Research area: 2,400 sq ft. Remodeled existing 2-story frame bldg./Western Reserve U, Squire Valleevue Farm, RD3, Gates Mills, Ohio	1964	\$50,000	Western Reserve U
Poultry research bldg and facilities	For turkey breeding, physiol and nutrition expt. Air-conditioned; special heat controls; day-night cycle lighting. Animal area: 23,000 sq ft. Research area: 3,876 sq ft. Three new	1966	\$181,500	State of Ohio

OHIO (Contd)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>MORTON LEAVITT, ARCHITECT (Contd)</u> Poultry research bldg and facilities (Contd)	bldgs, one story, masonry, concrete slab./Ohio Agricultural Experiment Station, Wooster, Ohio			
<u>JOHN WILLIAMS AND ASSOCIATES</u> 10650 Carnegie Ave Cleveland, Ohio 44106	A facility of 1,500 sq ft for large and small animals. Food-cage wash, storage room, surgery and lab on second floor./W 20th St and Broadway, Lorain, Ohio	1961	\$40,000	St. Joseph Hospital
Research lab unit	Area: 2,500 sq ft. Large and small animals, holding, food, cage, washing, labs, incinerator, surgery. First floor air-conditioned with day-night cycle lighting./2222 Central Ave, Cleveland, Ohio	1963	\$75,000	St. Vincent Charity Hospital
<u>ALLAN N. FORBECK & ASSOCIATES</u> 12429 Cedar Rd Cleveland Heights, Ohio 44106	Area: 7,200 sq ft. Nine large, double animal pens. Includes environmental room, manger room, lab, autopsy room, incinerator room. Differential air pressure control for clean corridor through pens to contaminated corridor./Ohio Agricultural Experiment Station, Wooster, Ohio	1962	\$250,000	State of Ohio
Canine-human cancer research isolation lab	Conversion of existing bldg. Similar to above project. Area: 6,000 sq ft./Dept of Veterinary Science, Mich. State U, East Lansing, Mich.	1965	\$150,000	State of Michigan

OHIO (Contd)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>DAN A. CARMICHAEL, AIA, ARCHITECT 5 East Long St Columbus, Ohio 43215</p>	<p>Bldg for general med research</p> <p>Animal area: 12,750 sq ft. Research area: 10,900 sq ft. Gross bldg area: 33,600 sq ft. Percentage of animal area to total: 38%./Wiseman Hall, 400 W 12th Ave, Columbus, Ohio</p>	1962	\$1,000,000	Ohio State U
<p>Bldg for general med research</p>	<p>Animal area: 2,200 sq ft. Research area: 10,800 sq ft. Gross bldg area: 16,800 sq ft. Percentage of animal area to total: 13%./Health Research Facility, 561 S 17th St, Columbus, Ohio</p>	1962	\$650,000	Children's Hospital
<p>Bldg for special contract med research</p>	<p>Animal area: 9,200 sq ft. Research area: 280 sq ft (with research spaces for necropsy only. All other research to be done in extensive existing labs). Gross bldg area: 13,800 sq ft./Animal Research Facility, 505 King Ave, Columbus, Ohio</p>	1966	\$650,000	Battelle Memorial Research Institute
<p>CHARLES L. BARBER AND ASSOCIATES 4447 Talmadge Rd Toledo, Ohio 43623</p>	<p>One-story bldg</p> <p>Size: 140 ft x 240 ft, with 80 ft x 40 ft pent-house for air conditioning equipment (360 tons). Includes 34 animal rooms, related labs, autopsy rooms, cage washing rooms, storage, and offices. Concrete floors, concrete block walls (face brick exterior), metal deck composite ceiling, structural steel frame, roof joists with metal roof deck, duct and crawl space over entire area. Total area: 36,800 sq ft. Animal area: 10,575 sq ft, or 28.6% of total. Research</p>	1966	\$1,200,000	Bristol Labs Division of Bristol-Myers Co (Mr. E. C. Zimmermann, Vice President)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>CHARLES L. BARBER AND ASSOCIATES</u> (Contd)</p> <p>One-story bldg (Contd)</p>	<p>area: 6,635 sq ft, or 18% of total. Mech equipment H/V&A/C: 3,710 sq ft, or 10% of total. Offices, cage washing, storage and corridors: 15,880 sq ft, or 43.4%/PO Box 657, Syracuse, N.Y. 13201</p>			

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>HUDGINS, THOMPSON, BALL AND ASSOCIATES, INC. 1411 Classen Blvd PO Box 1845 Oklahoma City, Okla. 73101</p> <p>Civil Aeromedical Research Institute Bldg</p>	<p>Area: 214,710 sq ft. For med research connected with problems of civil aviation. Research animals housed in adjacent 4,800-sq-ft bldg with facilities for dogs, rodents, and primates. Animal "hold rooms" are in main bldg near various labs, with an area of 1,431 sq ft. Both bldgs constructed of reinforced concrete with brick and tile exterior walls./F.A.A. Aeronautical Center, Will Rogers World Airport, Oklahoma City, Okla.</p>	1962	\$5,846,000	Oklahoma City Airport, Trust for the Federal Aviation Agency

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>BEAR, MCNEIL, SCHNEIDER, BLOOD-NORTH & HAWES 5502 NE Glisan St Portland, Oreg. 97213</p>	<p>Two units. Total gross area: 209,740 sq ft. Animal quarters: 2,679 sq ft. Animal rooms: cement floor; walls and ceiling of cement plaster and enamel paint./Corvallis, Oreg.</p>	<p>1961 (First unit completed 1960)</p>	<p>Unit 2: \$2,213,745 (including lab fixtures)</p>	<p>Oreg. State System of Higher Education</p>
<p>Oreg. State U Physical Chemistry Bldg</p> <p>U of Oreg. Medical School, Medical Research Bldg</p>	<p>Animal area: 11,617 sq ft. Rooms: animals, cage washing and storage, autopsy, sterilizing, sterile equipment storage, surgery. Cement floor, plaster walls, enamel paint, lay-in Transite system ceiling. Quarry tile floors in cage washing area./3181 SW Sam Jackson Park Rd, Portland, Oreg.</p>	<p>1963</p>	<p>Total cost of direct construction: \$2,326,381 (including lab fixtures)</p>	<p>Oreg. State System of Higher Education</p>
<p>Oreg. State U Radiation Center Bldg</p> <p>DUKEHART & KINNE 2311 NW Irving St Portland, Oreg. 97210</p>	<p>Total gross area: 33,214 sq ft. Animal area: 2,881 sq ft. Rooms: animals, feed mixing and storage, isotope preparation, necropsy, scrub-up, tissue preparation. Construction materials and finish same as projects above./Corvallis, Oreg.</p>	<p>1964</p>	<p>\$678,675</p>	<p>Oreg. State System of Higher Education</p>
<p>Quarantine bldg</p>	<p>Area: 4,000 sq ft, including five holding rooms. Contains receiving rooms for examination and treatment of animals. Auxiliary facilities included. Concrete block construction with gas fired hot air heat./Washington County, Oreg. (near Hillsboro)</p>	<p>1965</p>	<p>\$51,500</p>	<p>U of Oreg.</p>

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>DUKEHART & KINNE (Contd)</u></p> <p>Two goat breeding bldgs and large barn with exterior runs</p> <p>Bldg containing research area and animal facilities</p>	<p>Frame construction. No heat. Area: 2,048 sq ft./Washington County, Oreg. (near Hillsboro)</p> <p>Total bldg area: 56,130 sq ft. Research area: 16,128 sq ft. Animal area: 1,220 sq ft. Percentage of animal area to research area: 7$\frac{1}{2}$%. Floors of concrete with rubberized plastic floor covering and coved base. Walls and ceilings of Keenes cement plaster; enameled. Contains animal quarters in penthouse on roof with two cage rooms for rats, guinea pigs, rabbits and pigeons. Also contains food mixing and storage area, cage washing, dog room (8 pens and 4 runs) and cat room (cages and run)./Forest Grove, Oreg.</p>	<p>1965</p> <p>1966</p>	<p>(Included in above figure)</p> <p>Total: \$734,000</p> <p>Animal area: \$18,300</p>	<p>U of Oreg.</p> <p>Pacific U</p>

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>ALEXANDER EWING & ASSOCIATES</u> Rohm & Haas Bldg Independence Mall W Philadelphia, Pa. 19106				
Pharm research bldg	Area: 16,000 sq ft, with animal cage rooms, diet preparation, cage washing and related items./Fort Washington, Pa.	-	\$500,000	William H. Rorer, Inc
Miscellaneous animal cage rooms and cage washing facilities	Used in connection with pathol labs./Philadelphia, Pa.	-	Small portion of \$3,000,000 project	Methodist Hospital
Auxiliary animal holding spaces	Used in conjunction with teaching facilities./Philadelphia, Pa.	-	-	U of Pa. Medical School (Teaching Facilities, Phase 1)
Various animal holding facilities, cage washing and animal labs	For pharm research./North Wales, Pa.	-	-	Merck Sharp & Dohme
<u>GEORGE M. EWING CO. ARCHITECTS & ENGINEERS</u> 1720 Western Saving Fund Bldg Philadelphia, Pa. 19107				
Pharm animal lab	Use: determination of toxicity level in food and cosmetic additives. Complete lab facilities. Houses 600 animals. Area: 76,650 sq ft. Masonry bearing wall construction./Beltsville, Md.	1962	\$1,656,000	Food and Drug Administration
Food and Drug Admin animal lab	Use: food additive testing. Area: 35,000 sq ft. Concrete frames and masonry construction./Baltimore, Md.	1963	\$910,000	Food and Drug Administration

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>GEORGE M. EWING CO. ARCHITECTS & ENGINEERS (Contd)</u>				
Arctic Health Research Center	Use: Research for Arctic environment. Complete lab facilities. Area: 48,500 sq ft. Concrete frame and precast exterior panel construction. /U of Alaska, College, Alaska	1964	\$3,500,000	Dept of Health, Education and Welfare, Bureau of State Services
Andrews AFB Hospital	Animal facility use: virological studies and research. Area: 90,960 sq ft./Andrews AFB, Washington, D.C.	1965	\$2,844,000	District Corps of Engineers, Baltimore, Md.
Hahnemann Medical College and Hospital	Twenty-story lab for teaching and research. Constructed of steel frame and masonry with lab services provided. Complete animal holding and isolation areas for study and research included. /Philadelphia, Pa.	1966	\$25,000,000	State of Pennsylvania
<u>FRANCIS CAUFFMAN, WILKINSON & PEPPER</u> 204 W Rittenhouse Square Philadelphia, Pa. 19103	/Camden, N.J.	1963	\$221,000	South Jersey Medical Research Foundation
Facilities for study of hamsters, guinea pigs, rats, mice, and rhesus monkeys	For use by Dept of Reproductive Biol./Philadelphia, Pa.	1965	\$445,000	U of Pa., School of Medicine
Facilities for study of rhesus monkeys				
Oral health sciences bldg	A 6-story research lab and teaching bldg. Animal quarters on top floor. Area of labs: 40,000 sq ft. Animal area: 8,000 sq ft, or 10% of total bldg. Restricted corridor system used in animal quarters./Locust and 40th St, Philadelphia, Pa.	1966	Total: \$3,800,000 Animal area: \$400,000	U of Pa., School of Dental Medicine

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>HARRISON HUGH LIVINGSTON & LARSON 117 S 17th St Philadelphia, Pa. 19103</p> <p>Stein Research Center</p>	<p>A 3-story bldg and basement containing 16,000 sq ft. Construction: steel and wood, masonry exterior, metal stud and plaster interior. Facilities for housing small and medium-size animals for med and radiation phys research. Contains labs, X-ray facilities, and offices. Contains 840 sq ft of animal space, 5,600 sq ft of research space where animals are used. Animal space is 15% of related research space. /11th and Walnut Sts, Philadelphia, Pa.</p>	1965	<p>Total: \$507,088 Animal area: \$35,000</p>	Jefferson Medical College
<p>VINCENT G. KLING AND ASSOCIATES 1401 Arch St Philadelphia, Pa. 19102</p> <p>Cardiovascular research labs, animal colony</p>	<p>Animal area: 6,000 sq ft. Research area: 18,000 sq ft. Percentage of animal space to total space: 25%/Philadelphia, Pa.</p>	1961	<p>Total: \$210,000 Animal area: \$52,000</p>	Presbyterian Hospital
<p>Animal house of the DuPont Science Bldg</p>	<p>Animal area: 7,000 sq ft./Swarthmore, Pa.</p>	1962	\$140,000	Swarthmore College
<p>Animal colony as addn to the Institute of Cancer Research Labs</p>	<p>Animal space: 15,000 sq ft, or 50% of total space./Fox Chase, Pa.</p>	1965	\$1,300,000	Institute of Cancer Research

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>PAUL MONAGHAN, JR. AND MONAGHAN AND ORREST</u> The Rohm & Haas Bldg Independence Mall West Philadelphia, Pa. 19106	Included facilities for surgery, radiology, pathol and general outpatient facilities./U of Pa. Veterinary School	1963	\$1,000,000	U of Pa. Veterinary School
Farm animal hospital	Primarily lab facilities for various disciplines, plus some animal facilities, isolation unit, and special research lab unit./U of Pa. Veterinary School.	1964	\$1,600,000	U of Pa. Veterinary School
New addn to existing bldg	One-half of funds used for animal hospital including surgery suites, radiol suites and wards. Balance of funds used for anatomy, microbiol, parasitology, and virology./U of Pa. Veterinary School.	1965	\$1,000,000	U of Pa. Veterinary School
Alterations to existing school	Animal room for endocrinology lab. Humidity control, soundproof walls, seamless neoprene floors./Pride and Locust Sts, Pittsburgh, Pa.	1965	\$40,000,000	The Mercy Hospital of Pittsburgh
<u>SANDERS & THOMAS, INC</u> 120 S Broad St Philadelphia, Pa. 19107 1/				
<u>STOTZ, HESS AND MACLACHLAN</u> 1814 Investment Bldg Pittsburgh, Pa. 15222				
Mercy Hospital				

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>SANDERS & THOMAS, INC First Federal Bldg (home office) Pottstown, Pa. 19464</p>	<p>Clinical research bldg</p> <p>One-story bldg containing 75,828 sq ft of space. Precast concrete panel construction. Houses entire research and development community for development of chem, bacteriological, and radiological warfare agent and effects on human and animal subjects. Lab animals range from mice to hogs, held in clean isolated areas. Human subjects in appropriate isolation. Special design for containment of contamination, purification of atmosphere, prevention of infection or cross-contamination of lab personnel. Safety design and systems./Edgewood Arsenal, Md.</p>	1965	\$3,000,000	US Army Engineer District, Baltimore Corps of Engineers, Baltimore, Md.
<p>Emergency virus isolation facility</p>	<p>Area: 75,000 sq ft. Single-story, precast concrete panel lab. Four separate total containment virus research labs; 25% of each is for research on animals and caring for them. Includes airlocks, autoclaves, clothing change rooms, showers for personnel, rooms for glass preparation, cage and rack storage, electron microscopy, glass and cage washing, feed and bedding, media preparation, low temp storage and first aid./National Institutes of Health, Bethesda, Md.</p>	1966	\$3,250,000	National Institutes of Health--National Cancer Institute
<p>Med-biol research lab</p>	<p>The facility is for study of hazardous and highly infectious disease agents. Precast concrete panel construction. Area: 126,279 sq ft. Research area: 87,000 sq ft. Animals ranging in size from mice to horses are used in 25% of the space. Total containment suites, air showers, wet showers, waste sterilization, glass</p>	1966	\$8,000,000	District Engineer, US Army Engineer District, Maryland Corps of Engineers

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>SANDERS & THOMAS, INC</u> (Contd) Med-biol research lab (Contd)	preparation areas, cage washers, autoclaves, X-ray rooms, and post-exptl recovery areas./Fort Detrick, Md.			

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>ROBINSON, GREEN AND BERETTA</u> 2 John St Providence, R.I. 02906</p> <p>J. Walter Wilson Lab</p>	<p>A 6-story teaching and research lab containing 56,000 sq ft, with four lab floors arranged for max flexibility. Arranged on both sides of central corridor are 27 modules, 10 ft x 18 ft. Each is served by a utility shaft for all services. Lowest level: central supply, shop, three animal rooms. Top floor: mech equipment. Completely air-conditioned with separate system for animal rooms. Contains 12 modules for housing animals./Providence, R.I.</p>	1963	\$1,729,931	Brown U

Architects and projects	Description/location	Completed	Approximate cost	Clients
EDWIN A. KEEBLE ASSOCIATES, INC 2000 Glen Echo Rd Nashville, Tenn. 37215	Includes animal research lab, operating rooms, animal rooms, and runs. Area: 4,579 sq ft. Cost of hospital per square foot: \$25.80./Nash- ville, Tenn.	1963	Total: \$9,804,958 Animal area: \$118,138	Veterans Adminis- tration
Veterans Administration Hospital Veterans Administration Hospital	Includes animal research lab, operating rooms, animal rooms and runs. Area: 3,500 sq ft. Cost of hospital per square foot: \$34.00. /Washington, D.C.	1965	Total: \$18,321,011 Animal area: \$119,000	Veterans Adminis- tration

Architects and projects	Description/location	Completed	Approximate cost	Clients
HOUSTON RESEARCH INSTITUTE, INC 6001 Gulf Freeway Houston, Texas 77023				
Pre-design study of entire Fort Detrick Process Development Operation	Study also included quarantined and challenged animal holding, bacteriol and virol research and all cognate services thereto./Fort Detrick, Frederick, Md.	1962-64	\$6,000,000	Technical Engineering Division, US Army Chemical Corps Biological Warfare Lab (Mr. Jim Carey)
Complete engineering design including animal holding facility	For rhesus monkeys, guinea pigs, and mice./Fort Detrick, Frederick, Md.	1962-64	(Included in above figure)	Same as above
Pre-design study for microbiol and virol facility	Includes animal holding facility for quarantined and challenged rhesus monkeys, dogs, cats, chickens, guinea pigs, and mice./Los Angeles, Calif.	1965	\$750,000	North American Aviation, Inc (Mr. David Whitford)
MACKIE AND KAMRATH, AIA, ARCHITECTS 2713 Ferndale Place Houston, Texas 77006				
Bioastronautical research lab	Addn of 25,000 sq ft to existing animal facilities for research in connection with space program. Animal area: 17,000 sq ft, or 68% of total space. Research area: 17,000 sq ft. Bldg is 1 story, concrete and concrete block construction; includes areas for chimps, cages, etc. Surfaces mostly concrete block painted. /Holloman AFB, N. Mex.	1962	Total: \$500,000 Animal area: \$340,000	USAF MISSILE
City health bldg	For med research. Gross area: 65,000 sq ft. Animal area: 800 sq ft, or 1% of total. Research area consists of three floors and basement of concrete frame and masonry construction.	1965 (Contd)	Total: \$1,600,000 Animal area: \$16,000	City of Houston

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>MACKIE AND KARRATH, AIA, ARCHITECTS (Contd)</u></p> <p>City health bldg (Contd)</p> <p>Chem-pharm bldg</p>	<p>Animal area finishes, same as above./1115 N MacGregor, Houston, Texas</p> <p>For teaching and research. Total area: 125,000 sq ft. Animal research: 10,000 sq ft, or 8% of total space. Research area contains 20,000 sq ft with classroom, lab, research bldg, three floors and penthouse (the latter devoted to animals). Concrete frame and masonry construction. Epoxy terrazzo floors, glazed structural tile walls, plaster ceilings./3801 Cullen Blvd, Houston, Texas</p>	1965	<p>Total: \$3,500,000 Animal area: \$280,000</p>	U of Houston
<p><u>WILLIAM E. PARRISH</u> 212 E Rhapsody Drive San Antonio, Texas 78216</p> <p>One-story, fully air-conditioned bldg</p>	<p>Area: 7,000 sq ft. Accommodates all phases of small animal research in well-equipped, sterile area. Masonry bearing walls, steel roof bar joists without interior columns./Temple, Texas</p>	1964	\$100,000	Scott and White
<p><u>HOWARD WONG, AIA, ARCHITECT</u> 816 Kallison Tower San Antonio, Texas 78212</p> <p>Holding facilities--baboons</p>	<p>An animal bldg of 3,200 sq ft for holding caged primates for observation and treatment. All cages suspended from overhead tracks. Concrete construction with steel roof framing./San Antonio, Texas</p>	1963	\$51,000	Southwest Foundation for Research and Education

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>HOWARD WONG, AIA, ARCHITECT</u> (Contd)				
Small animal bldg	Lab and controlled environment animal rooms containing 3,200 sq ft. Cold and hot rooms with controlled temp. Suspended concrete floor with exposed underfloor utility system./San Antonio, Texas	1963	\$70,000	Southwest Foundation for Research and Education
Breeding pens for baboons	Outdoor breeding pens for colonies of about 25 baboons. Steel pipe bows framing with chain link fabric caging. Pens include rock mountain and all have radiant heated shelter. Approx 800 sq ft per pen at \$10,000 each./San Antonio, Texas	1964	\$50,000	(See above)
Primate holding and research facilities	Eight bldgs and two adns to existing facilities having a combined floor area of 69,900 sq ft. Approx 40% devoted to research, and 60% either animal housing or support facilities. All bldgs contemporary, flat roof, 1 story and as follows:	1966	(See below)	(See above)
Microbiol lab	Controlled lab study of micro-organisms and related diseases in primates. Area: 14,000 sq ft. Suspended concrete floor and roof systems with exposed underfloor utility system./Loop 410 and Commerce St, San Antonio, Texas	1966	\$365,000	(See above)
Holding facility	Area: 3,500 sq ft. Holds caged primates for observation and treatment in conjunction with lab studies. Suspended concrete floor and roof systems, masonry partitions, ventilation system./Loop 410 and Commerce St, San Antonio, Texas.	1966	\$58,000	(See above)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>HOWARD WONG, AIA, ARCHITECT</u> (Contd)				
Primate holding and research facilities (Contd)				
Isolation quarters	Area: 3,500 sq ft. Animal isolation rooms: 2,800 sq ft. Research and support space: 700 sq ft. Suspended concrete floor and roof, masonry and plaster partitions. Air-conditioned./Loop 410 and Commerce St, San Antonio, Texas	1966	\$65,000	Southwest Foundation for Research and Education
Addn to bio-med engineering bldg	Area: 8,000 sq ft. For tissue culture studies and handling storage facilities. Chem supply and reagent facilities. Construction: concrete floors, steel framing and roof system, masonry and plaster partitions. Air-conditioned./Loop 410 and Commerce St, San Antonio, Texas	1966	\$100,000	(See above)
Central feeds and records bldg	Total area: 8,000 sq ft. Bulk feed storage and preparation space: 5,000 sq ft. Record keeping and filing with related offices: 3,000 sq ft. Concrete floor and roof with masonry partitions. Air-conditioned./Loop 410 and Commerce St, San Antonio, Texas	1966	\$36,000	(See above)
Holding barn	Area: 5,000 sq ft. Holding and preparation of individual primates for distribution to other research centers. Suspended caging system with concrete floors, steel framing and roof system, masonry walls, ventilation and radiant heating./Loop 410 and Commerce St, San Antonio, Texas	1966	\$46,000	(See above)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>HOWARD WONG, AIA, ARCHITECT</u> (Contd)</p> <p>Primate holding and research facilities (Contd)</p> <p>Addn to breeding pens</p>	<p>Area: 12,000 sq ft. Consists of baboon breeding colonies divided into 12 bays, with rock mountains and radiant heated shelter. Concrete base galvanized pipe bows framing with chain link fabric covering./Loop 410 and Commerce St, San Antonio, Texas</p>	1966	\$100,000	Southwest Foundation for Research and Education
<p>Chimpanzee quarters</p>	<p>Area: 4,400 sq ft. Area of 3,000 sq ft related to breeding and study of chimpanzee from infancy to adulthood. Housing area with both indoor and outdoor spaces: 1,400 sq ft. Concrete floor and roof, masonry partitions, galvanized steel frame and wire mesh outdoor partitions. Air-conditioned./Loop 410 and Commerce St, San Antonio, Texas</p>	1966	\$65,000	(See above)
<p>Quarantine quarters</p>	<p>Area: 11,800 sq ft. An area of 6,800 sq ft used for inspection and preparation of incoming primates with research and support spaces, including surgery, necropsy, and histo-pathology facilities. Animal area: 5,000 sq ft, including isolation rooms and indoor-outdoor caging facilities. Concrete floor and roof, masonry and plaster partitions, galvanized steel frame and chain link fabric caging. Air-conditioned./Loop 410 and Commerce St, San Antonio, Texas</p>	1966	\$175,000	(See above)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>HOWARD WONG, AIA, ARCHITECT</u> (Contd)</p> <p>Primate holding and research facilities (Contd)</p> <p>Staging lab</p>	<p>Area: 1,800 sq ft. Contains electronic analysis and testing labs and computer facilities. Concrete floor, steel frame and roof system, masonry and dry wall partitions. Air-conditioned./Loop 410 and Commerce St, San Antonio, Texas</p>	1966	\$30,000	Southwest Foundation for Research and Education

Architects and projects	Description/location	Completed	Approximate cost	Clients
<u>BANNER HOMES AND CONSTRUCTION CO., INC.</u> 868 E Ninth South Salt Lake City, Utah 84105 Exptl animal bldgs	Used to raise small animals for research. Area: 4,000 sq ft. Masonry construction./1955 N Redwood Rd, Salt Lake City, Utah	1964	\$40,000	Redwood Game Farm
<u>RICHARDSON & RICHARDSON, ARCHITECTS</u> 1119 Newhouse Bldg Salt Lake City, Utah 84111 College of Pharmacy bldg	Area: 55,000 sq ft in total project. Pharm, including animal area, approx 11,000 sq ft. Includes rat and mice holding and breeding rooms, large animal room, animal isolation room, preparation room and storage room, and labs./U of Utah, Salt Lake City, Utah	1966	\$1,250,000	Utah State Building Board, U of Utah

Architects and projects	Description/location	Completed	Approximate cost	Clients
ALLEN J. DICKEY 922 N Randolph St Arlington County, Va. 22203	Dog kennel Area: 23,000 sq ft. Contains dog housing facilities and outdoor runs w/ supporting lab and study facilities. Route 7, Fairfax, Va.	1962	\$300,000	Karlold Corp
Primate labs	Area: 7,400 sq ft. Contains primate holding and research facilities./Route 7, Fairfax, Va.	1963	\$100,000	Karlold Corp
Bionetics animal bldg	Area: 8,600 sq ft. For infectious disease studies./101 W Jefferson, Falls Church, Va.	1963	\$150,000	Bionetics Research Corp
Research park	The park has an area of 125 acres and contains facilities for Hazleton Labs with five bldg clusters available as expansion or to support research facilities computer center, conference center, etc./Route 7, Fairfax, Va.	1964	\$150,000	Karlold Corp
Admin bldg	Area: 18,000 sq ft. Contains executive and general offices, conference area, cafeteria and kitchen to serve 500 people./Route 7, Fairfax, Va.	1964	\$332,000	Hazleton Labs
Lab facilities in Isaac Newton Industrial Complex	Facilities comprising 19,000 sq ft	1965	\$365,000	Karlold Corp
Facilities comprising 20,000 sq ft	Contains research facilities for inhalation studies, labs, offices, and computer center./Reston, Va.	1966	\$600,000	Karlold Corp

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>ALLEN J. DICKEY (Contd)</u></p> <p>Addn to existing toxicol bldg</p> <p><u>STAINBACK AND SCRIBNER</u> 300 National Bank Bldg Charlottesville, Va.</p> <p>Life science bldg</p>	<p>Area: 10,000 sq ft.; 5,000 sq ft for toxicol studies and 5,000 sq ft for special animal rooms./Route 7, Fairfax, Va.</p> <p>Area: 120,000 sq ft. A biol and psychol classroom and lab bldg. Contains approx 3,340 sq ft of animal colony rooms, preparation areas, operating room, cage washing and sterilizing rooms, food preparation and storage areas for mice, rabbits, and monkeys./U of Va., Charlottesville, Va.</p>	<p>1966</p> <p>1964</p>	<p>\$180,000</p> <p>Total: \$2,500,000 Animal area: \$87,000</p>	<p>Karlold Corp</p> <p>U of Va.</p>
<p><u>LEE, KING & POOLE, ARCHITECTS</u> Southern States Bldg Richmond, Va. 23219</p> <p>Med education bldg</p>	<p>Houses four basic sciences. Animal area: 14,500 sq ft. Total area: 240,000 sq ft. Percentage of animal space to total: 16½%. Contemporary design./Richmond, Va.</p>	<p>1964</p>	<p>Total: \$5,500,000 Animal area: \$375,000</p>	<p>Medical College of Virginia</p>
<p>Toxicol lab</p>	<p>/Richmond, Va.</p>	<p>1965</p>	<p>\$40,000</p>	<p>Medical College of Virginia</p>

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>SMITH & SMITH, ARCHITECTS 7310 Axton St N Springfield, Va. 22151</p> <p>Animal research center</p>	<p>Center consists of a farm animal bldg and kennel bldg, two residences, numerous smaller related facilities (basically animal holding type structures), various labs, X-ray, surgical rooms, offices, food preparation areas, employee facilities, and central heating and air conditioning plant./Poolesville, Md.</p>	1965	\$4,000,000	National Institutes of Health--US Public Health Service

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p>LEO A. DALY & ASSOCIATES 607 Securities Bldg Seattle, Wash. 98101</p> <p>Radioactive inhalation facility</p>	<p>For radiation studies on dogs. A 1-story bldg of concrete and concrete masonry construction. Combined animal and research space: 4,700 sq ft. Contains hospital, clinic and operating rooms./Richland, Wash.</p>	1966	\$225,000	US Atomic Energy Commission
<p>Radio-nuclide facility</p> <p>NARAMORE, BAIN, BRADY & JOHANSON 904 Seventh Ave Seattle, Wash. 98104</p>	<p>For radiation studies on hogs. A 1-story bldg of concrete and concrete masonry construction. Combined animal and research space: 2,800 sq ft./Richland, Wash.</p>	1966	\$175,000	US Atomic Energy Commission
<p>Cancer-primate bldg</p>	<p>For study of primates and research in cancer. Reinforced concrete frame, brick veneer, offices, labs, and animal quarters. One story below ground; five stories above; outdoor animal quarters on roof. Air-conditioned. Area: 100,000 sq ft, including 2-story arcade. Animals: mice, rats, and primates./Seattle, Wash.</p>	1963	\$2,530,000	U of Wash.
<p>Bureau of Commercial Fisheries</p>	<p>For research in fish products technol and biol. Reinforced concrete frame with brick veneer. Contains offices, labs, fish holding areas, and basement. Four stories high plus penthouse. Air-conditioned. Gross area: 74,000 sq ft. Net area: 37,000 sq ft, of which approx 10% is devoted to facilities for fish./Seattle, Wash.</p>	1964	\$1,914,000	US Dept of Interior, Fish and Wildlife Service

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>NARAYAN, BAIN, BRADY & JOHANSON</u> (Contd)</p> <p>Federal Office Bldg No 8</p>	<p>For all activities of central lab headquarters for Food and Drug Admin. Reinforced concrete frame with limestone exterior. Contains offices, labs, and animal quarters. Two stories below ground; six stories above, plus penthouse. Air-conditioned. Area: 540,000 sq ft. Animals: mice, rats, cats, dogs, chickens, and rabbits./200 C St, SW, Washington, D.C. 20204</p>	1965	\$19,500,000	Food and Drug Administration
<p>Preventive med and environmental health</p>	<p>For research in epidemiol, biostatistics and environmental health. Reinforced concrete frame with brick veneer. Contains offices, labs and animal quarters. Two stories below ground; five stories above, plus penthouse. Air-conditioned. Gross area: 55,000 sq ft. Research area: 29,000 net sq ft, of which 3,400 net sq ft (12%) is devoted to facilities for mice, rats, cats, and primates./Seattle, Wash.</p>	1966	\$2,100,000	U of Wash.

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>AMES-TORKELSON AND ASSOCIATES</u> 732 N Midvale Blvd Madison, Wis. 53705</p> <p>Vet science bldg</p>	<p>Total area: 33,382 sq ft. Consists of three stories and basement. Reinforced concrete frame, face brick, and concrete exterior. For research in microbiol., serology, general clinical, lyophilization, parasitology. Contains tissue preparation labs, animal cubicles and holding, necropsy, and central services. Animal holding space approx 18% of area. Large animal holding pens. Research animal environmental control cage rooms (20)./U of Wis., Madison, Wis.</p>	1965	\$1,285,000	Board of Regents, U of Wis., State of Wis.
<p>Central animal diagnostic lab</p>	<p>Total area: 38,300 sq ft. Two stories and basement. Reinforced concrete frame, face brick, concrete exterior. Function: bacteriological testing (brucellosis, pullorum, leptospirosis, mastitis); also, viral and toxicity testing. Facilities used to diagnose poultry diseases (post mortem) and large animal diseases. Animal holding space approx 6% of area. Large animal holding pens and cooler storage. Research animal cage rooms./6101 Mineral Point Rd, Madison, Wis.</p>	1965	\$1,046,000	Dept of Agriculture, State of Wis.
<p><u>SCHUTE, PHILLIPS, MOCHON, INC</u> 11121 W Oklahoma Ave Milwaukee, Wis. 53227</p> <p>Cancer research bldg</p>	<p>Facility used for cancer research by Dept of Oncology, U of Wisconsin Medical School. Provides offices, labs, and auxiliary spaces. Facility developed around modular concept,</p>	1964	<p>Total: \$2,800,000 Bldg: \$2,320,000</p>	U of Wis. (Dr. Rusch, Director of Cancer Research)

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>SCHUTE, PHILLIPS, MOCHON, INC</u> (Contd)</p> <p>Cancer research bldg (Contd)</p>	<p>permitting max standardization, flexibility and multiple use. All spaces air-conditioned. Animal rooms on separate and independent air conditioning system. Bldg is first unit of master plan involving approx three times as much space. Animal area: 7,617 sq ft, or 8% of total. Research area: 46,057 sq ft, or 48% of total. Total bldg area: 96,920 sq ft. Bldg consists of 11 stories of modular reinforced concrete framing with precast architectural concrete exterior wall panels./Madison, Wis.</p>			

Architects and projects	Description/location	Completed	Approximate cost	Clients
<p><u>HITCHCOCK AND HITCHCOCK, ARCHITECTS</u> 107 S Fifth St Laramie, Wyo. 82070</p> <p>State vet lab</p>	<p>Lab to be used to investigate all animal diseases in state and to discover cause of death in stock animals. Area: 6,000 sq ft, including two offices, four labs, serology, necropsy, surgery, central wash and preparation rooms, four animal rooms, showers, toilets, etc. Glazed tile wainscots, concrete floors with vinyl asbestos. Walk-in incinerator. Wood and concrete roof. US Serology Lab: 1,200 sq ft. Research labs: 5,000 sq ft. Animals occupy 19.5% of total space. Circular design with special incinerator 8 ft x 5 ft in size in center./Laramie, Wyo.</p>	1963	\$147,600	Wyoming State Live-stock and Sanitary Board, Cheyenne, Wyo.